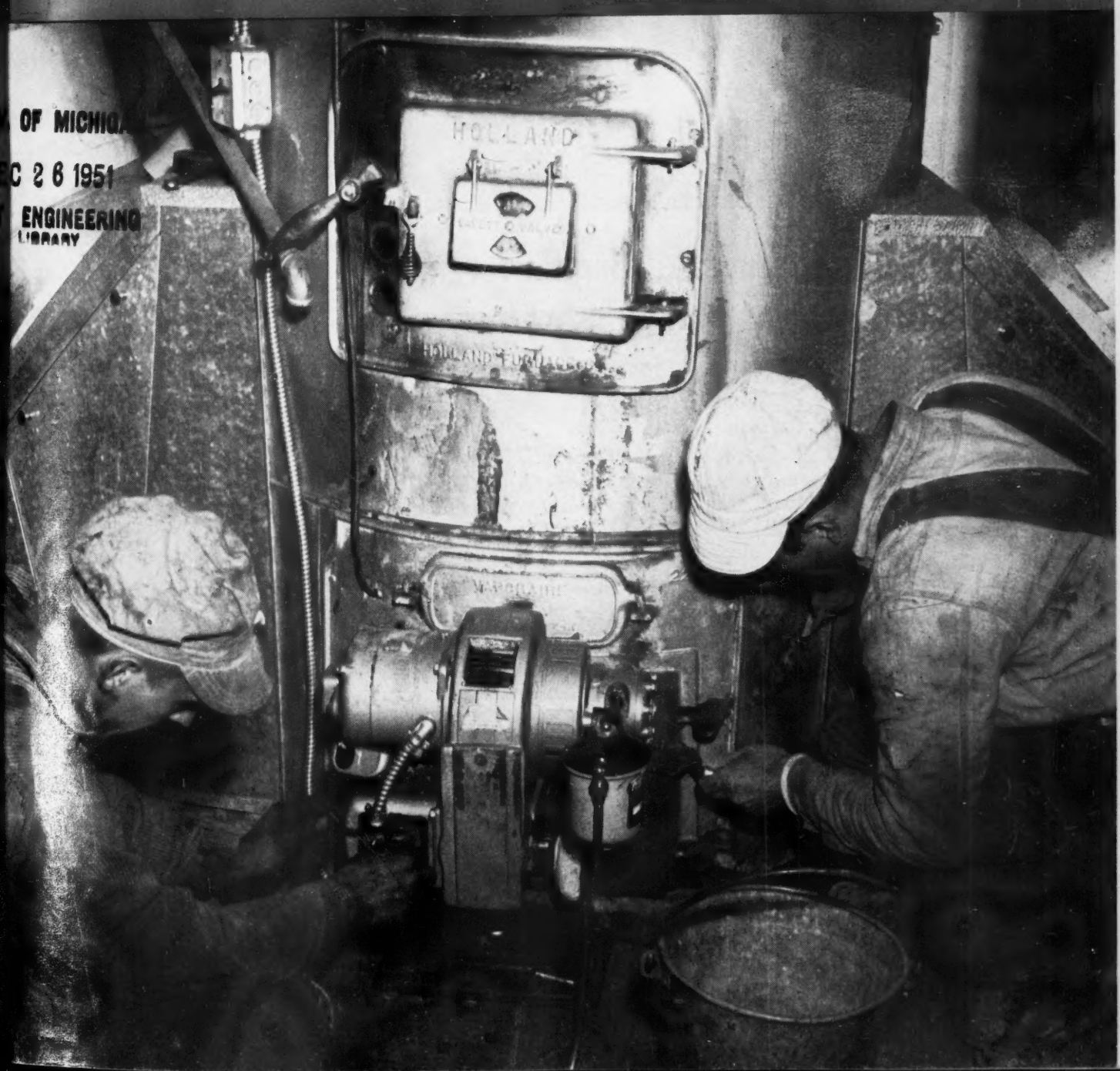
DECEMBER
1951

fueloil & oil heat



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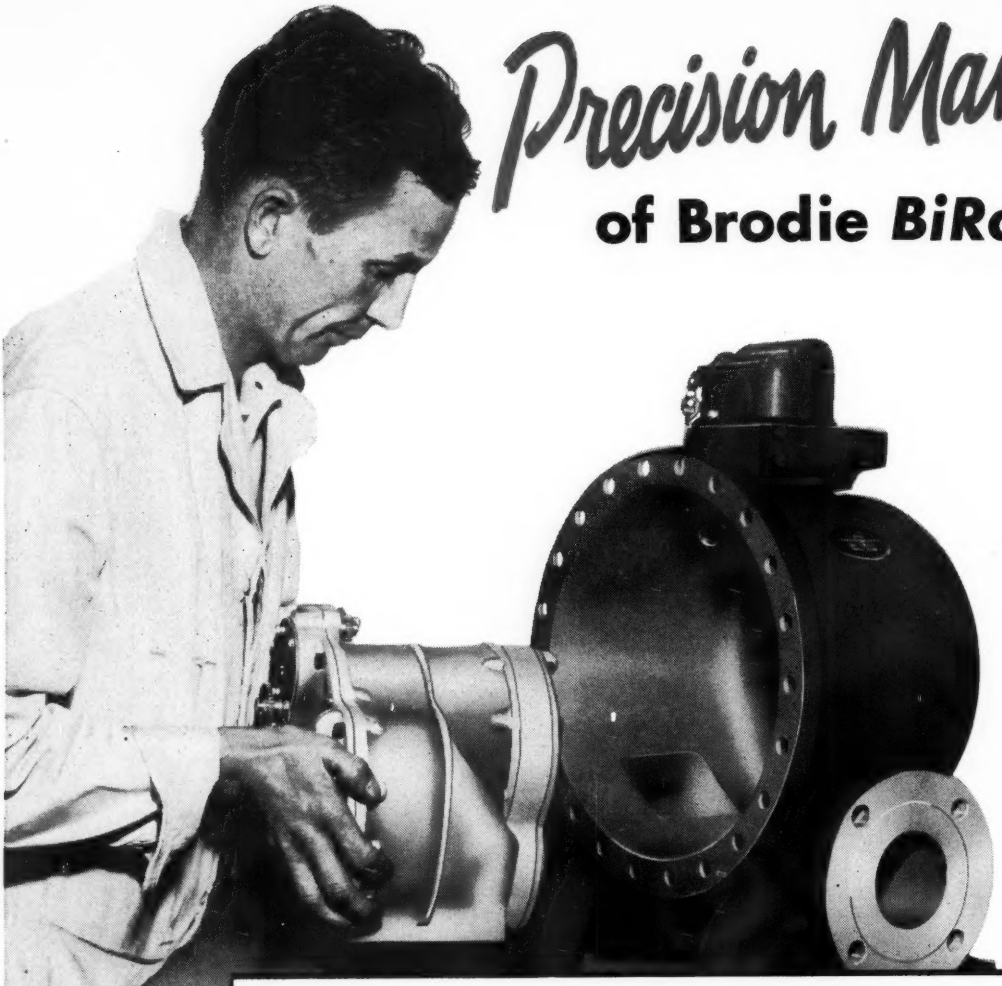
Precision Manufacture

of Brodie *BiRotor* Meters



—Insures Lasting Performance and Unfailing Accuracy

Every single component of Brodie BiRotor Meters has been exactingly engineered and precision-built for unfailing accuracy, ruggedness and enduring performance.

Each and every factor is in proper balance:

- **All-welded steel construction** provides maximum strength and rigidity with minimum weight.
- **Interchangeable BiRotor measuring units** are fully self-contained unit-built assemblies providing maximum accessibility for installation and service maintenance.

Measuring units can be quickly and easily removed for service or replacement without disturbing existing line connections.

Better balanced operation and longer trouble-free service life make Brodie BiRotors—the *by-word of petroleum metering*. Investigate fully, today.

BRODIE ALL-STEEL BiRotor TRUE-ROTARY METERS

RALPH N. BRODIE CO., INC. • 61st & LOWELL STREETS, OAKLAND 8, CALIFORNIA, U.S.A.

Division Offices: 550 SO. COLUMBUS AVE., MT. VERNON, N.Y. • 59 E. VAN BUREN, CHICAGO 5, ILL. • 302 SO. PEARL STREET, DALLAS, TEXAS
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DECEMBER Fueloil & oilheat 1951

VOLUME 10 NUMBER 12

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MEMBER CCA

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Among other things . . .

The boys installing the burner in the cover picture are Donald Trapp and Robert White, who work for Double L Heating Service, Hobart, Indiana. There's a story in this issue about how this firm of installation specialists keeps down costs.

The Dave Wepman story on replacement burner selling is on the nose for this time of year. It is the first of a series of sales articles by this very able author who has spent his business career in promoting oilheating for two of the largest burner manufacturers.

The Staten Island story by Dunphy uncovers a classic situation where he finds a dealer selling high priced oilheating jobs in low-income homes. Then John Schulz is in again with Sparky and his new assistant, Oops. It reads like a current whodunit . . . very mellow drama.

Peter Andrews is back on his annual visit to tell us what his roundup of 300 economists sees for us in 1952.

"What's THAT on the Christmas tree?"

My wife had every reason to question my sanity. Looked like I had suddenly gone loco!

But *I* had a point. Or thought so. Sure, it was partly a gag, but here it was Christmas, and I was pretty happy . . . with myself *and* with the world!

Why? Well, the true happiness of Christmas comes from being grateful. And I *know* why I am. First, for my wife and family, of course.

But I'm also mighty glad to be in the heating business. I don't know of any other I'd rather be in. I love the work and I can see tremendous opportunities all around me.

As a result of these opportunities, I've had a pretty good year . . . made some extra money . . . and think I can make even more next year.

The people I deal with are wonderful, too. Not only my customers – but the boys from the suppliers, as well. They're all good fellows, and always ready to cooperate when I have a problem.

I like the products I sell, too. My trademark is quality. In controls I always specify Honeywell, for they have a reputation for quality that adds to mine. And they've got such a complete line I can use their controls for any job that comes up.

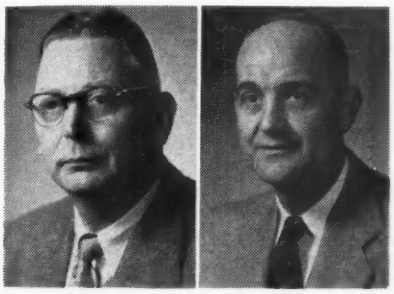
Now do you see why I hung a Chronotherm on the tree? To me it symbolizes many of the things that have made me happy. And I know that in their own special way, Honeywell controls have helped to make this one of the finest Christmases ever!

MINNEAPOLIS **Honeywell**

First in Controls

Names in the News

J. F. Knoff, who has been assistant general sales manager, has succeeded C. S. Stackpole, resigned, as general sales manager, Airtemp Div., Chrysler Corp., Dayton, Ohio. *T. B. Hollencamp*, former supervisor of service, has been named national service



Knoff Hollencamp

manager. Knoff joined Airtemp in 1945 as a district representative in New Orleans, because regional manager there and later transferred in 1947 to Dayton as divisional manager. The next year he was named sales director and in 1950, assistant general sales manager. Hollencamp, with Airtemp since 1937, began as a service representative, advanced to assistant service manager in 1942 and supervisor of service in 1949.

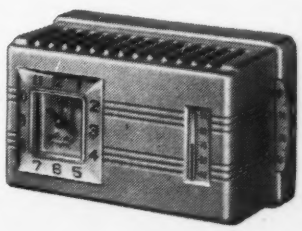
A. R. *Birkins* has been appointed sales manager, Swirling Oil Burner Mfg. Corp., Long Island City, N. Y., in charge of merchandising the firm's line of Swirling Flame vertical atomizing, high pressure oilburners. Birkins has been active in the oilburner industry for the past 25 years, except during the war years, and from 1930 to 1940 was sales manager of the oilburner division of Town and Country Oil Corp., Mt.

Let the big modernization market help fill your stocking in '52!

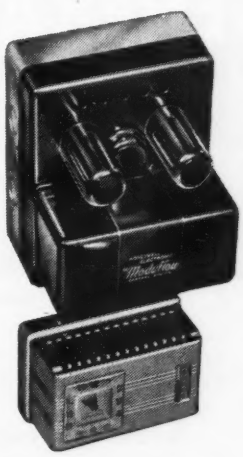
Promote Up-to-Date Honeywell Controls Like These During the Coming Year

Honeywell's famous Chronotherm, plus the new Electronic Moduflow package, give you a terrific one-two punch for going after a modernization market that will be *even bigger* in '52!

Honeywell Chronotherm



The Honeywell Chronotherm is the most sensitive, most accurate thermostat ever built! It automatically lowers the temperature at night and raises it in the morning, so your customers get up in a nice warm house. And it saves fuel, too. These features offer you a mighty important "modernization" opportunity . . . because a recent survey showed that 3 out of 4 people with thermostats raise and lower temperature settings every day—*by hand.* These people are your Chronotherm market!



Honeywell Electronic Moduflow "Package"

The magic sensitivity of electronics has now been applied to temperature control in a manner that presents many new sales opportunities to dealers. An outdoor and indoor thermostat system gives your customers the finest comfort even in the most changeable weather. This system compensates for temperature changes outdoors, load shifts indoors, and structural heat loss. It's up to 100 times more sensitive than conventional systems . . . and it's ideal for complete modernization jobs!

For illustrated literature explaining the above products in detail, write today to Minneapolis-Honeywell, Dept. FH-12-228, Minneapolis 8, Minnesota.

MINNEAPOLIS **Honeywell**

First in Controls

Vernon, N. Y. More recently he was vice-president of HomEase Products Corp., Paterson, N. J.

Chester S. Stackpole has been appointed manager of the Oil-O-Matic Div., Eureka Williams Corp., Bloomington, Ill., to have charge of all sales, service and advertising functions for the Oil-O-Matic line. During the past three years he was vice-president and general sales manager, Airtemp Div., Chrysler Corp., Dayton, Ohio and prior to that had been with Consolidated Gas & Electric, Baltimore and with Stone & Webster.

F. B. Caldwell has resigned as secretary of the Chicago Oil Burner Association and Burning Oil Distributors Association, both Chicago, and established his own office in Evanston, Ill. Caldwell's company, Measurement Methods Co., performs the dual role of supplying oil storage and delivery equipment and representing manufacturers of gauges, meters and pumps. The "Percentgraph" system for automatic fueloil deliveries also is made by the company.

William E. Renz, Jr., is representing Neptune Meter Co., New York 20, N. Y., in a sales capacity in Wisconsin, Illinois, northern Indiana and Michigan, on Red Seal petroleum meters and Trident industrial meters. His past experience includes connections with the Remington and General Finance Companies, Chicago, and sales training with Warner Woven Label Co., New York.

Robert H. Pratt has been appointed product manager, Oil and Electric Appliances for the Control Div., Perfex Corp., Milwaukee, Wis. He joined the Perfex sales department in 1935 and had advanced to the position of manager of appliance and accessory control sales before this latest promotion.

Donal M. Sullivan of Wellesley Hills, Mass., has been elected executive secretary of the Independent Oil Men's Association of New England, Boston, Mass. He replaces Joseph B. Wells, whose resignation took effect December 1. Sullivan for many years has been on the editorial staff of the *Boston Globe*, is a graduate of the Boston University Law School and a member of the Massachusetts Bar. His background also includes experience in public relations and he acted recently as volunteer public relations vice-chairman for the Greater Boston Red Feather Campaign.

Rx Prescribe GENERAL FUEL OIL FILTERS FOR ALL YOUR INSTALLATIONS

Why? Here Are 4 Good Reasons

DELUXE MODEL 2A-300
FOR THE BIG JOBS

MASTER MODEL 2A-700
FOR MEDIUM NEEDS

STANDARD MODEL 1A-25
FOR SMALL HOMES,
HEATERS, ETC.

1 There's a GENERAL FILTER for every fuel oil filtering job — large, medium, or small.

2 GENERALS are easy to install. All that's needed is one wrench and a few minutes' work.

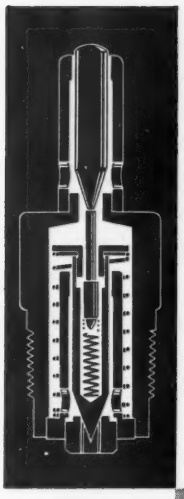
3 It takes just two minutes to insert a GENERAL Replacement Cartridge — and every GENERAL installed means cartridge sales for years to come.

4 Customers *WANT* GENERAL FILTERS because they eliminate shut-downs due to clogged nozzles. Costly service "call-backs" are minimized, too.

GENERAL FILTERS now distributes CLEAN RIGHT SOOT REMOVER—Certain-safe for *all* heating plants. Tell your customers about it.

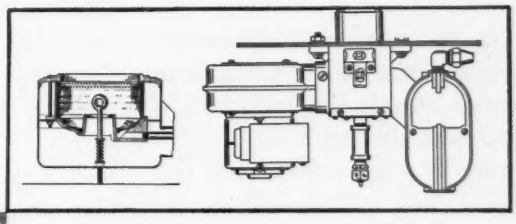
GENERAL FILTERS INCORPORATED
GENERAL FUEL OIL FILTERS
12890 WESTWOOD AVE.
DETROIT 23, MICHIGAN
CANADIAN FACTORY BRANCH: CANADIAN GENERAL FILTERS, LTD., 2679 DANFORTH AVE., TORONTO 13, ONTARIO

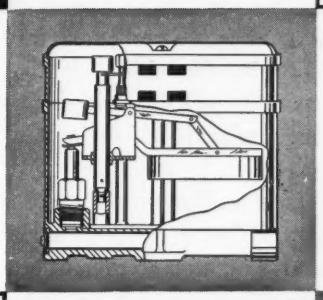
Plan your packaged small home heating units the proven miller way



Constant level valve has two inlet needles in tandem. A practically leakproof system.

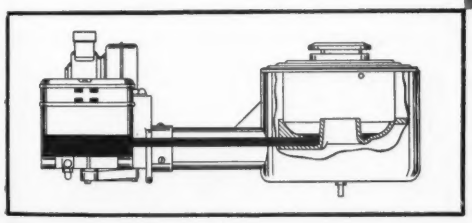
Easily leveled external spirit levels internal leveling bolt.





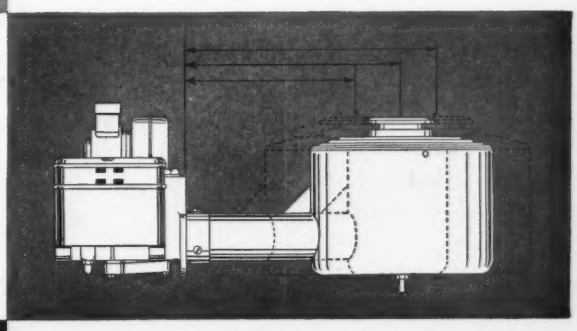
Fixed pilot and hi-fire. No field adjustment. Solid plastic float. It can't leak.

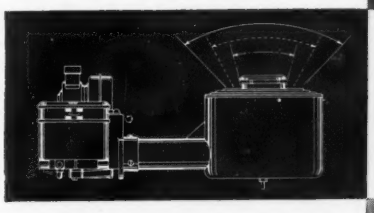
Automatic safety shut off and reset in Miller constant level valve. No manual reset required.



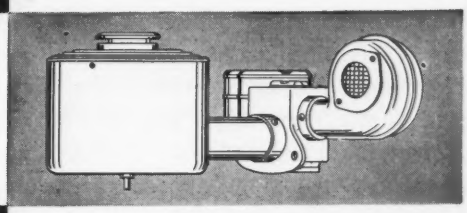
All parts accurately machined to give proper oil level in burner. Valve setting fixed in relation to pot. No field adjustment.

Burner made to right length, centered in combustion chamber.





Flame shape set for best efficiency... no hot spots.



Fixed air setting. No field adjustment.

It pays to plan your packaged units for small home heating at the drawing board . . . the proven Miller way.

Give your dealers these sure-fire sales advantages for more sales . . . more profits with the Miller model VMO burner and controls.

THE miller COMPANY

SINCE 1844

HEATING PRODUCTS DIVISION • MERIDEN • CONNECTICUT

ILLUMINATING DIVISION: Fluorescent, Incandescent, Mercury Lighting Equipment
HEATING PRODUCTS DIVISION: Domestic Oil Burners and Liquid Fuel Devices
ROLLING MILL DIVISION: Phosphor Bronze and Brass in Strips and Rolls

Editorial Leaks

IN A RECENT ISSUE of "Anthracite Institute Bulletin" is a comprehensive analysis of comparative fuel costs in 15 cities with the conclusion that oil heat costs 55% more than using rice coal. They use 2,077 gallons as the average annual consumption for fuel-oil, which is around 10% too high in a normal year, but we can overlook that and admit that rice coal is a cheaper fuel.

On the other hand very few families want to use rice coal because it's so small in size that it presents a difficult problem in firing.

Sawdust would be even cheaper than rice coal but not many families use it any more. Some other things that are just as combustible cost even less than sawdust if you want to go to the bother of gathering them. But few want to.

People don't buy rice coal or fueloil *per se;* they buy the kind of living conditions that carefree heating facilitates.

❖

THE NATIONAL PETROLEUM COUNCIL is to study and report on measures to provide up to one and a half million barrels a day of overland transportation for oil in case tanker movements should be disrupted, according to "Petty's Oil Letter." The Gas Council for the Interior Department has been asked to consider the effect of re-converting one or both of the Big Inch pipelines from gas to oil in the event of a national emergency. At the time the Government sold them for gas it was stipulated that they be kept in condition to reconvert to oil if this should become necessary. The oil pumping stations have been kept intact and they are tested each month.

And speaking of gas, the Department of Health of the City of New York has issued a bulletin, "Gas Can Spell Death," pointing out that 114 New Yorkers were killed by gas fumes last year.

While this is not a suitable subject for oilheating promotion, it does show that gas, with all its publicized glamour, has occasional headaches too.

❖

THE QUESTION KEEPS coming up about why the oil industry so often gives publicity to probable shortages of fueloil and then rounds the corner into the heating season with tanks bulging and oil running out of its ears.

It is possible that these early warnings are given to stimulate producers and refiners to put more effort into fueloil and raise the yields. If that is the purpose it usually works, but it makes some related industries unhappy.

Then there's another possibility. Oil is a complex industry at its technical levels, but it wouldn't do much good to tell the public about that. As a result most of the oil news for public consumption can only be tied to supply, demand and price, none of them too exciting to the newspaper editor.

Like most other Americans, oil men like to see their names in the paper now and then. The surest way to accomplish this is to predict some impending public tragedy like running out of fueloil when the winds howl out of the Northwest, come January. That makes them sit up and take notice.

❖

SIGNIFICANT DEVELOPMENTS are shaping up in the cooperation of the New York School Board and the oil industry to train men for oilheating careers. This project was outlined in a feature article in last month's FUELOIL & OIL HEAT. Now comes Henry L. Schwartz, president of Paragon Oil Co., Brooklyn, with a large cash contribution to establish awards for the outstanding boys graduating from the oilheating courses.

These are to be known as Paragon Oil Awards. Schwartz has given the school people a check to buy 250 Series E Government bonds in $100 denominations. The ten best boys in each graduating class are to get a bond. This year there are courses in three vocational schools . . . next year there will be four or five, but in any event the awards will run through six or seven years.

From the letter that went with the check, two paragraphs are noteworthy:

"Your teachings and these awards combined should prepare young men to go into the world as loyal and patriotic citizens. They will be fitted to become leaders in business enterprise, using the knowledge and skill you have taught.

"These students will have the great gifts of this country to start their careers . . . knowledge and skill. They will accomplish much in building the stronger America of tomorrow."

This Schwartz contribution to the success of the courses is highly praiseworthy.

The School Board, on the other hand, has told the oil men that out of a total of $37,000 annual allowance from the Federal Government for vocational schools they are spending $20,000 to fit up the oilheating quarters at Samuel Gompers school. So the project is thriving both ways.

❖

THIS IS A quote from "Griffinews," an employee house organ of Griffin Fuel Co., out West, "Weren't we all glad to have a little cool weather last week! Let's hope for a nice long blustery winter with lots of cold people in Seattle."

That reminds us of the pointed crack by one top oil man at the API meeting in Chicago, "There's nothing wrong with the oil industry that a good cold winter can't cure."

Then on our desk is an oil industry release from Doremus & Co., New York investment house, with the quotation, "If it were not for Iran the industry might be facing a condition of somewhat overample inventories."

❖

THE QUIET MAY people in Baltimore got a postcard in the mail, which said, "Gentlemen: 'Leak,' Very truly yours, Chas. Jackson, Havre de Grace, Md." This is probably the shortest service call to date. There were drips from an oil line.

Speaking of Gifts...

Isn't it true that, whether it's diamonds or bacon, the item that makes a real gift is something that accomplishes one or both of these two things:

It relieves the receiver of something he has and doesn't want, such as drudgery, expense or boredom.

Or it gives the receiver something he doesn't have . . . but wants.

Why not consider VENTALARM Signal in this light? When you "give away" VENTALARM Whistling Tank Fill Signal by installing it on your customers' old and new tanks, you actually present a "gift" of the best kind to yourself as well as to your customer.

To you — the use of VENTALARM Signal means a savings of up to 30% of your regular delivery costs. And these savings go on and on, long after your original investment is cancelled out. In addition, costly spills are eliminated and degree day work is simplified. You just fill 'til the whistle stops.

To your customer — the use of VENTALARM Signal promises clean, convenient fuel delivery, the two things homeowners stress as most desirable in fuel delivery. The customer is automatically relieved from any worry about damaging spills or the need to be at home when deliveries are made.

Can you find a better gift for your company and your customers, now or at any other time of the year?

VENTALARM Signal is available in enough shapes and sizes to satisfy any tank vent pipe conditions you may have.

See your regular Supply House or write for information to:

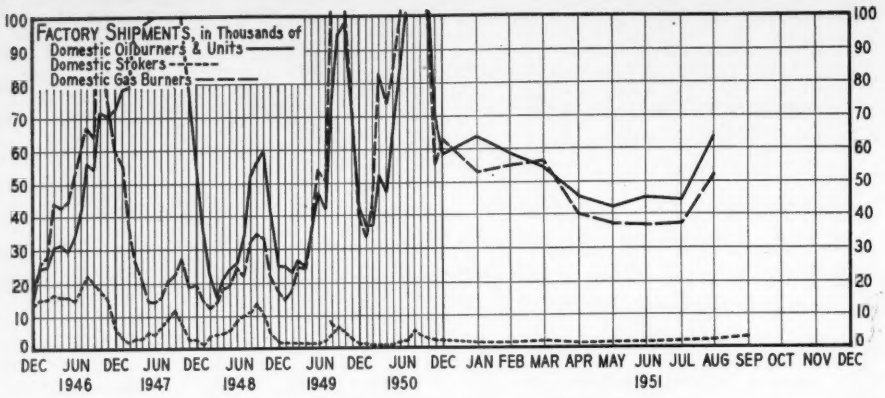
SCULLY SIGNAL COMPANY
76 First Street, Cambridge 41, Mass.

ALL SCULLY PRODUCTS ARE PROTECTED BY U. S. AND FOREIGN PATENTS OR PATENTS PENDING.

VENTALARM®
WHISTLING TANK FILL SIGNAL

Canadian Licensee: EMPIRE BRASS MFG. CO., LTD., London, Ontario

Other Scully Fuel Oil Delivery Aids: VENTALARM-GAUGE and FASFILL CONNECTOR


FACTORY SHIPMENTS, in Thousands of
Domestic Oilburners & Units
Domestic Stokers
Domestic Gas Burners
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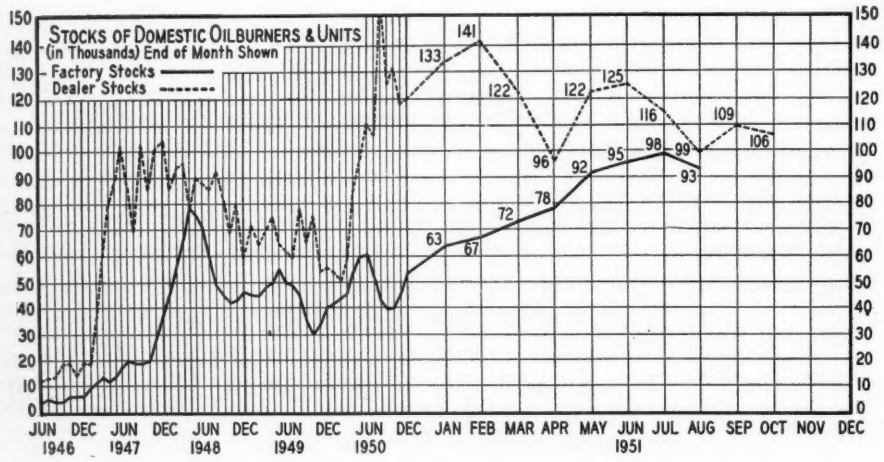
1946 1947 1948 1949 1950 1951

Shipments of Oilburners and Units

(Including Exports)

Adjusted to include manufacturers other than the 152 reporting to Census Bureau, FUELOIL & OIL HEAT's estimates of shipments are:

	AUGUST			EAGHT MONTHS		
	1951	*1950*	*Percent Change*	*1951*	*1950*	*Percent Change*
Conversion	46,282	105,845	—56.2	296,137	409,667	—27.7
Boiler Units	4,385	13,568	—67.6	36,846	55,486	—33.6
Furnace Units	12,815	22,529	—43.1	85,969	97,535	—11.8
All Domestic	63,482	141,942	—55.2	418,952	562,688	—25.5
Commercial	3,441	3,938	—12.6	27,986	19,891	+40.7
Total	66,923	145,880	—54.1	446,938	582,579	—23.2

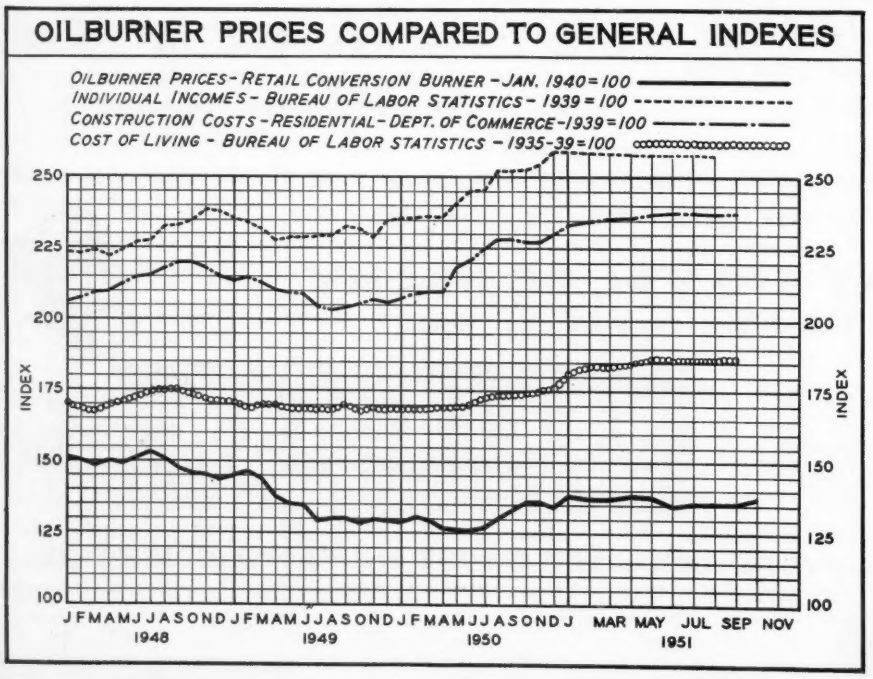

STOCKS OF DOMESTIC OILBURNERS & UNITS
(in Thousands) End of Month Shown
Factory Stocks
Dealer Stocks
JUN DEC JUN DEC JUN DEC JUN DEC JUN DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
1946 1947 1948 1949 1950 1951

October Minimum Retail Prices: Key Dealers

	CONVERSION BURNERS	BOILER-BURNERS	FURNACE BURNERS
October Aver.	$332	$696	$632
September Aver.	332	688	630

Price Index: Conversion Burners: January 1940 is 100%

	WHOLESALE				RETAIL		
October	137.8	Six months ago	137.2	October	136.6	Six months ago	138.1
September	137.5	Year ago	133.2	September	136.4	Year ago	135.6


OILBURNER PRICES COMPARED TO GENERAL INDEXES
OILBURNER PRICES - RETAIL CONVERSION BURNER - JAN. 1940 = 100
INDIVIDUAL INCOMES - BUREAU OF LABOR STATISTICS - 1939 = 100
CONSTRUCTION COSTS - RESIDENTIAL - DEPT. OF COMMERCE - 1939 = 100
COST OF LIVING - BUREAU OF LABOR STATISTICS - 1935-39 = 100
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1948 1949 1950 1951

Oilheating Trends

OCTOBER TURNED OUT to be a red letter month in the progress of oilheating this year. Installations of domestic oilburners and units for the month are estimated at 97,785 or 1% above the 96,738 in the same month last year. It is interesting to notice the climb since mid-summer. July made the worst showing at 42% below last year, August was 20% below, September 6% below and now October crosses to the plus side.

Total installations for the first ten months of the year are estimated at 561,778 compared with 663,730, showing a drop for the entire period of 15%. If this ratio holds to the end of the year we will finish above the 700,000 mark.

The October installations were divided: New homes 31,542; Replacements of old oilburners 13,114; Conversions from other fuels 53,129.

BURNER STOCKS: Domestic oilburners and units in dealer hands on November 1 were approximately 105,575, a small drop from 109,030 the previous month. On November 1 last year they were 131,626. Factory stocks on August 31, the latest available date were 92,530. This is slightly below the all time peak of 98,058 reached at the end of July.

TANK STOCKS: Dealer stocks of consumer tanks on November 1 were approximately 115,004 compared with 112,958 on October 1 and compared with 85,736 on November 1, 1950. By sizes the November 1 stocks were divided: 104,450 of sizes 220-275 gallons; 6,868 in sizes 550-675 gallons; 3,686 tanks with capacity of 1,000 gallons or larger.

The average price paid by the dealer for a 275 gallon tank dropped during October from $43 to $42. In New England the average price was $40; Mid-Atlantic paid an average of $44; in the Midwest it was $39; and in the Pacific Northwest $45.

BURNER INSTALLATION HOURS: Last month one of the reporting dealers mentioned that his crews install conversion burners in 10 to 12 man hours. This prompted the question this month to the entire group asking their

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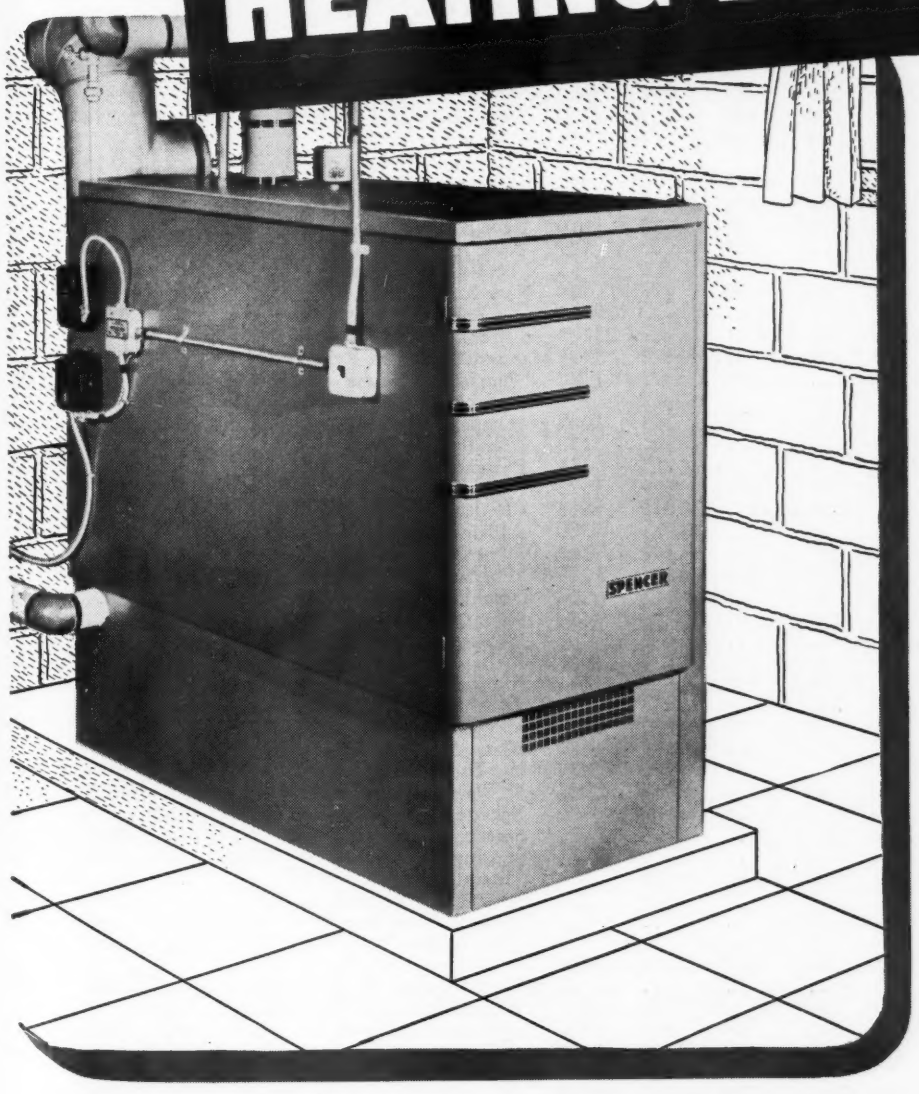

A popular model in one of the many Spencer Boiler series suitable for homes, apartments, and small commercial buildings. This type is available in capacities from 700 to 3000 square feet, steam.

There is a Spencer for every building, for every fuel.

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experience. Among all reporting dealers the average man hours required to install a typical conversion job with a 275 gallon basement tank was 21.4 hours, including all electrical work. Taking out the electrical work in markets where a separate electrician must be used, the average time of the installing crews was 14.4 hours. It was a surprise to discover that on 32% of the installations reported by all of the companies they used outside electricians.

FURNACES FOR TWO FUELS: Several furnace manufacturers have put on the market furnaces equipped with oilburners but so designed that the oilburner can be removed and a gas burner substituted at very small cost. From results of the questions to the reporting group on that subject it appears that oilheating dealers in the first ten months of this year have installed about 11,300 furnaces with that special facility.

On the question about how many of these have subsequently been switched to gas burning only one dealer reported one such switch. Obviously since these units were only put in during 1951 there would be little occasion for any switch-over up to now.

ALUMINUM IN OILBURNERS: Because aluminum is one of the most critical materials in the 1952 outlook the dealers were asked about the importance of this material in the burners they sell. The returns indicate that 26.5% of the burners they sold this year had one or more principal parts made of aluminum.

Burners with main castings of aluminum were 8.2% of all oilburners. Those with an aluminum blower housing numbered 17.8%. Then, 2.1% of the burners had an aluminum gun tube; 1.5% had aluminum pedestals; aluminum combustion heads were used on 0.5% of the burners reported.

The most prevalent use of aluminum was in the fan and this was reported on 24.9% of the burners.

The figure showing 8.2% of oilburners using aluminum for the main casting appears a little high and some of these may actually have been zinc die castings.

COLLECTIONS: There appears to have been some improvement in collections during the year although many dealers are still saying that this is still their toughest problem. For a general opinion on collections, 32% of the reporting dealers say they are good; 60% report them fair and only 8% consider them poor. On the same date last year the score from the same group of dealers was 33% good, 54% fair and 13% poor.

To be more specific, the dealers report that on November 1 their accounts receivable were equal to the

(*Please turn to page* 120)

Oilburner* and Building Permits

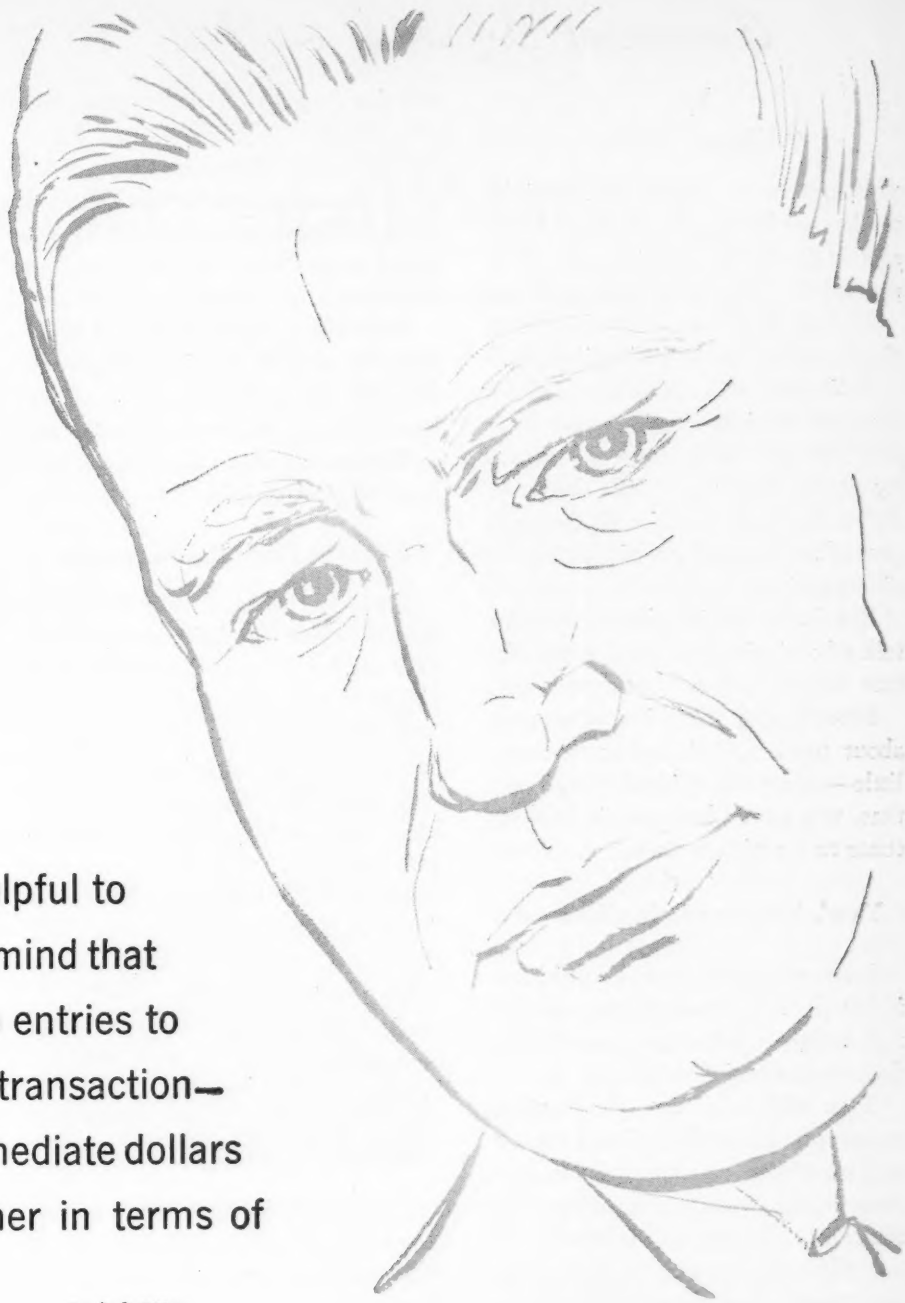
OILBURNERS					DWELLINGS			
October		10 MONTHS			October		10 MONTHS	
1951	1950	1951	1950		1951	1950	1951	1950
98	173	605	966	Albany, New York	..	..	..	..
332	279	2611	4008	Baltimore, Maryland	479	274	4242	1637
..	..	..	..	Binghamton, New York	9	12	104	128
..	..	..	..	Bloomfield, N. J.	12	15	107	185
..	..	..	..	Boston, Mass.	39	35	385	279
193	238	932	1114	Bridgeport, Conn.	..	..	..	..
..	..	..	..	Buffalo, New York	56	50	486	599
79	3	158	22	Columbus, Ohio	..	..	..	..
..	..	..	..	Des Moines, Iowa	89	90	777	1497
..	589	..	1607	Detroit, Michigan	325	632	5667	10903
70	117	491	654	Elizabeth, N. J.	0	6	43	54
63	66	367	460	Freeport, New York	..	..	..	..
..	..	..	..	Greenwich, Conn.	27	29	369	351
..	..	..	..	Hackensack, N. J.	8	6	103	176
..	88	..	1262	Hartford, Conn.	..	..	..	..
..	..	..	..	Hudson County, N. J.	..	..	..	..
50	46	382	523	Irvington, N. J.	7	2	50	45
..	..	..	..	Lynn, Massachusetts	18	14	122	159
11	70	244	511	Meriden, Conn.	..	..	..	..
208	427	931	2697	Milwaukee, Wisc.	290	328	2686	3147
198	170	757	919	Minneapolis, Minn.	116	129	1254	1859
36	44	244	323	Montclair, N. J.	..	..	..	..
..	..	..	..	Morristown, N. J.	3	0	25	26
49	58	278	452	Mt. Vernon, New York	..	..	..	..
302	260	1707	2137	Newark, New Jersey	..	..	..	..
115	45	639	810	New Bedford, Mass.	..	..	..	..
..	102	..	579	New Haven, Conn.	..	..	..	..
..	..	..	..	New Orleans, La.	..	..	..	..
69	60	424	329	New Rochelle, N. Y.	16	38	137	184
..	4183	..	29007	New York City (total)	..	..	..	..
..	3211	..	23209	Brooklyn-Queens	..	..	..	..
806	972	5530	5798	Manhattan, Bronx, Rchd	..	..	..	..
..	108	..	1186	Norfolk, Virginia	72	213	841	1255
..	..	..	..	Oakland, Calif.	..	..	..	..
143	192	753	1047	Omaha, Nebraska	78	107	867	1400
33	21	202	250	Orange, New Jersey	0	1	33	17
28	43	227	353	Passaic, New Jersey	..	..	..	..
101	108	599	973	Paterson, N. J.	19	17	170	187
1505	1857	7640	11616	Philadelphia, Pa.	..	..	..	..
..	..	..	..	Plainfield, N. J.	21	8	167	276
127	95	596	525	Portland, Maine	11	15	143	215
464	666	3874	5219	Portland, Oregon	101	202	1286	2271
45	50	212	206	Poughkeepsie, N. Y.	..	..	..	..
152	97	828	634	Providence, R. I.	25	19	..	278
..	..	..	..	Reading, Pa.	6	1	74	67
49	222	577	1027	Richmond, Virginia	41	47	547	652
99	155	630	1045	Roanoke, Virginia	..	..	..	..
445	444	2446	3170	Rochester, N. Y.	..	..	..	..
39	37	237	308	Rockville Center, N. Y.	1	8	99	172
69	63	307	387	Salem, Massachusetts	8	4	76	74
..	92	..	354	St. Louis, Missouri	33	50	574	892
149	366	714	1986	St. Paul, Minnesota	157	116	1078	1484
2	26	534	550	Schenectady, N. Y.	..	..	..	..
..	..	..	..	Seattle, Washington	142	269	1615	2483
..	..	..	..	Springfield, Mass.	174	64	783	652
52	65	508	816	Stamford, Conn.	..	..	..	..
8	27	45	136	Syracuse, New York	35	37	306	534
..	..	..	..	Trenton, New Jersey	5	6	64	59
..	..	..	..	Utica, New York	12	14	130	158
298	223	1018	1576	Washington, D. C.	..	..	..	..
..	..	..	..	West Orange, N. J.	53	74	351	422
64	56	351	327	White Plains, N. Y.	11	30	95	187
185	174	848	907	Wilmington, Delaware	39	21	242	238
370	614	1639	2428	Worcester, Mass.	..	..	..	..
145	148	647	831	Yonkers, New York	..	..	..	..
7251	8777	41722	58040	*Totals*	2535	2976	26098	34924
—17.4		—28.1		*Percent Change*	—14.8		—25.2	

*Permits are not total sales in each market since none are reported from suburban areas, which normally account for 20% to 60% of total sales in each market; nor are they an accurate index where enforcement is lax. Rightly used, however, they are a useful working index.

..two entries

for every

transaction..



"I have found it helpful to keep constantly in mind that there are really two entries to be made for every transaction—one in terms of immediate dollars and cents, the other in terms of goodwill."

Ralph Hitz

the standard of the industry...

ABC OIL BURNERS

AUTOMATIC BURNER CORPORATION

1823 Carroll Avenue • Chicago 12, Illinois

fueloil & oilheat

Government Influences on Fuels

by
Milburn Petty

WASHINGTON — Petroleum Administration for Defense has stopped using scare talk about rationing and taken a new tack on the steel-for-oil problem.

In fact, PAD has flatly stated that there will be "no rationing in 1952."

Basically, the situation hasn't changed. More drilling is needed, more refineries and transportation, if capacity is to keep pace with demands. Down the road, there is still the prospect of shortages if steel is denied for oil expansion.

But PAD officials found that the talk of rationing—in the not too-distant future—did not get more steel.

Short range, there is more worry about too much oil rather than too little—except for residual fuel oil and that, too, would be cured if Iran returns to the picture soon.

Year's Program Being Planned

Longer range, however, the bald fact is that U. S. oil capacity is not sufficient now to fight a major war even with the deepest cuts in civilian use.

Even without a war, the requirements of the mobilization program and expanding civilian economy may overtax the industry capacity soon after 1952, if expansion is halted.

PAD is now putting together a program based upon the expansion plans of each company. This total will be balanced out as to production, refining and transportation. Material requirements for a year ahead will be totaled.

The long-range situation is so serious that PAD should not have to compete for steel each quarter with other industries losing out sometimes on considerations other than essentiality.

PAD expects the tight situation on Navy Special Fuel Oil to continue into the next quarter but hopes that it can be handled voluntarily the next time rather than by directives.

Four major suppliers were directed to furnish 2,100,000 barrels of Navy Special during the fourth quarter.

It was difficult to reach an agreement on the price. Some suppliers pointed out that, separately, the residual fuel oil and No. 2 blended into Navy Special would bring more than the flat price first suggested by the Office of Price Stabilization, namely, $2.11 per barrel at the Gulf and $2.15 at Los Angeles.

Meanwhile, representatives of PAD and the Armed Services Petroleum Purchase Agency are trying to shake loose more supplies on the West Coast with promises that later liftings will be shifted to the Gulf.

Fuel Oil Price Raises Sought

Some mid-western suppliers have asked OPS for permission to raise their tank car prices, now that jobber margins have been restored by the October 30th raise in tankwagon ceilings on light fuel oils in the Middle West.

It seems that these suppliers have been guaranteeing margins to jobbers who were caught by the freeze last December with their tankwagon prices down. Now, they want to restore their tank car prices.

Meanwhile, OPS chief DiSalle has put the chill on hopes for early action on East Coast light fuel prices to relieve the squeeze on tanker rates.

Seeks Study of Big Inch for Oil

The military wants PAD to recommend how to obtain 2,000,000, B/D of overland transportation in case war should disrupt tanker movements to the East Coast.

Included would be a study of how the Big Inch pipelines, now transporting gas, could be re-converted to oil.

Independent producers have determined to make a fight now for higher ceilings on crude oil, based on their increased costs since the last general advance on crude in 1947.

One group, the Texas Independent Producers & Royalty Owners Association, has indicated that they believe refiners and marketers "have already gotten theirs," so they want a "proportionate" increase for producers.

Independent refiners have served notice that if there is any general or local advance in crude price ceilings, product prices should be given a commensurate increase, simultaneously.

PAD's top layer, as now constituted, believes that it would be difficult to justify higher crude price ceilings. First, because crude suppliers are plentiful; second, because of the industry's profits, overall.

New Top PAD Officials Named

Bruce K. Brown will leave PAD on June 1 to return to his company, Pan-Am Southern at New Orleans. He will be succeeded by Ed Warren, Midland, Tex., IPAA's past president.

R. L. Foree, Dallas, is resigning as president of TIPRO, to become director of PAD's production division on January 1.

Thus, the heads of two producer groups which have been seeking higher crude prices will be moving into key positions at PAD.

A. P. Frame, No. 2 PAD official, leaves February 1 to return to his company, Cities Service. He likely will be succeeded by C. E. Davis (Shell), refining director.

Service Charge Raise Denied

OPS has denied an Ohio fuel oil marketer's request for higher price ceilings on oil burner service work.

The ruling was that, while the marketer was losing money on this service work, it was not causing "substantial financial hardship" because he was losing less now than before the Korean War, dollar-wise and percentage-wise.

To Test FPC Gas Price Powers

The state of Wisconsin and three cities—Detroit, Kansas City and Milwaukee—have appealed to the U. S. court of appeals here to set aside the Federal Power Commission's decision in the Phillips Petroleum case.

In this case, FPC ruled that it had no authority to control prices for natural gas charged by independent producers and gatherers in sales to interstate pipelines.

It was contended that Phillips' prices were "excessive" and should be rolled back. Failure of the FPC to take jurisdiction leaves a gap in regulatory control of gas prices because other agencies must raise consumer prices to offset the higher prices the pipelines have to pay gas producers, said the appellants.

Selling the replacement Market

Probably the most neglected sales Opportunity in the Oilheating Industry

by
David Wepman*

EVERY SALES MANAGER—and that inclusive title can cover a multitude of working men in our industry—spends at least half his time trying to find prospects. In the early days of our industry, the aggressive sales organizations simplified this problem by turning much of the job over to the salesman himself. Sales managers expected that every salesman would do sufficient canvassing and other prospecting to furnish himself all the prospects he needed. The salesman who failed to do so got short shrift from the boss and ordinarily fell by the wayside. Even then, however, "house leads" were a major factor in the overall selling picture and every progressive organization used all the available methods to dig up live prospects. The most successful oilheating retailers were firms that developed promotional selling methods that created prospects in large numbers.

Any number of students of our industry have bemoaned the fact that modern selling organizations seem to have forgotten many of the successful promotional methods which worked so well in the twenties and thirties. This article—the first in a series—is not such a criticism of our industry. Rather, it is an attempt to describe a certain number of those selling methods in sufficient detail so that they can be used as a guide to help us return to some of those methods and programs which may again prove successful.

The problem of prospecting is in one sense a more difficult problem today than it was in the earlier days of our industry—despite the fact that we have so completely sold our product that every home owner wants automatic heat. Conditions have so changed our selling problem that we can no longer expect our sales force to develop all the prospects it needs without help from management. More and more management feels the necessity for telling its salesmen "We'll furnish the leads, you do the closing." More and more we see advertisements for oilheating salesmen that contain the magic words "prospects furnished." This series of articles will attempt to describe a group of programs which may well furnish all the prospects an active sales organization needs.

David Wepman

The seasonal aspects of our business have always been such that the mid-winter season has been a slow one. Every annual sales curve shows a dip after truly cold weather sets in, and no basic rise until spring. It is fitting, therefore, that this series should start with a mid-winter sales campaign, designed to bring live prospects and actual sales during the December, January, February season. Here then is an outline for such a sales campaign—a campaign designed specifically to sell the replacement market.

First let's look at the market itself. The January issue of FUELOIL & OIL HEAT shows that during the year 1950 11.5% of all of the oilburners sold replaced old oilburners, and that this percentage equaled 93,627 actual sales. This was during a year when, as the analyzer says "there were no fueloil shortage scares, either real or imagined, in 1950, so that there was little or no compulsion for people to replace old oilburning equipment.

Activity along these lines apparently was a reflection of the sales efforts exerted by individual dealers in their own markets to locate inefficient burners and sell owners on the merits of an up-to-date model to achieve more efficient and economical performance." There is our market. Every alert retailer recognizes the value of this market, but few of them seem to realize just how large that market is, and still fewer have developed a consistent aggressive sales plan for reaching that market.

It is estimated that one out of every three oilburners is over ten years old and any good oilburner engineer will tell you that a burner over ten years old is obsolete, in that it does not take advantage of modern methods of controlling air, atomizing oil, controlling the overall heating system, or efficiently burning the new oils. Much more important than this fact, however, is the basic fact that the boilers or furnaces in which these burners are installed are almost always considerably older than the burners themselves. It can be argued successfully that well over a million of the oilfired heating plants in use are so old as to represent good honest prospects for the sale of a new burner, and more often, a complete new heating plant. Yes—the market is big enough to interest every single wide awake retailer.

Whenever a major market opens for the progressive businessman, he is first faced with developing a plan to enable

*Merchandising Manager, York-Shipley, Inc., York, Pa.

him to get his share of that market—and the first step in this plan must be to locate the actual market and pin point it so that he can reach it. The problem of locating the replacement oilheating market means the building of an actual list of obsolete oilheating plants in your own community. Here are six specific methods, any one of which will help you to locate that market. Many dealers will see fit to use more than one of these methods.

1. TELEPHONE CANVASS

Here is a simple inexpensive method of checking desirable residential areas to determine whether they represent prospects for the replacement of old heating plants. All that you need to do is to set up a telephone canvass system. Ordinarily this should be done by the hiring of housewives anxious to earn extra money by spending a few hours a day canvassing by telephone. Each such housewife should be given a specific area, selected from a cross reference directory, and paid by the number of calls she completes and the number of survey sheets she turns in to the company. The survey sheet should give the telephone canvasser a complete questionnaire with these questions.

a. What kind or make of oilburner is installed in your home?

b. In what year was it installed?

c. What is your average yearly oil consumption?

d. How much oil did you burn last year?

e. When was your heating plant last tested for efficiency? The answers to those questions must be the first step in our program—locating the market.

2. THE HIGH SCHOOL SURVEY

Hire a few high school students for afternoon and Saturday work to survey the residential areas, seeking answers to these same questions.

3. THE HOUSE TO HOUSE SALES CANVASS

Use your own sales force. Conduct a thorough sales canvass, using the questionnaire as a door opener. If your staff is large enough, this is the "guaranteed best" method.

4. FIRE MARSHALL RECORDS

In many communities the Fire Department or the City Building Department maintains complete public records of oil heat installations, showing the exact date on which they were actually installed. Where these records are public it is an easy matter to make up your own market list.

5. OIL COMPANY DELIVERY RECORDS

A partial list can easily be made if you can get access to oil company delivery records, since most such records give complete information as to age and type of heating plant.

6. SERVICE RECORDS

All lists obtained by any method should be supplemented with records of your own service department.

Now you have located the market and you know where the prospects are, you know their names and addresses, you know what kind of burners they have, how old they are and much other valuable information. Your next step then is to obtain permission from the homeowner to make a genuine and absolutely free survey of the operation of his heating system. The purpose of this survey must be to give all homeowners an honest answer as to what a new heating system or a new burner can do for him—to indicate exactly the shortcomings or weaknesses of his present obsolete system. Now you are faced with the problem of reaching him to offer this survey free-of-charge. Here are five specific methods for presenting this message to him.

1. BY ADVERTISING

Prepare a series of special advertisements which point out to the homeowner exactly what a scientific survey of his heating plant will tell him and the fact that such a survey is free and without obligation. It must be pointed out that this survey is a genuine analysis of the operation of his heating plant—that it is made by trained workers in the field and that these workers are equipped with scientific testing apparatus to furnish detailed information.

2. BY PERSONAL LETTER

Write your prospect a personal letter giving him exactly the same information including, if you can, photographs of the testing apparatus in as much detail as possible, in order to convince him that the survey is of great value. Printed literature, usually available from the manufacturer of draft gauges, flue gas analysis instruments and stack thermometers, might be of value as an enclosure with this letter.

3. BY RADIO OR TELEVISION

Local radio and television stations can carry the same message as short commercials.

4. BY TELEPHONE

A telephone canvass invitation to the homeowner has proven very effective in a number of cases. Again, it must be one which is carefully worked out in advance to give exactly the information required, and it must be made by a telephone operator sufficiently well trained to convince the homeowner that the survey is an un-

Combustion Efficiency Scale

Carbon Dioxide CO_2 Percent	STACK TEMPERATURE IN °F.							
	1000	*900*	*800*	*700*	*600*	*500*	*400*	*300*
4.0	33.0	39.5	46.3	52.6	59.3	65.8	72.4	78.9
4.5	39.7	45.2	57.0	56.8	62.7	68.6	74.5	80.5
5.0	44.6	49.8	55.0	71.4	65.7	71.0	76.4	81.7
5.5	48.7	53.5	58.5	63.3	68.0	73.0	77.8	82.7
6.0	52.1	56.6	61.0	65.7	70.2	74.5	79.2	83.5
6.5	55.0	59.0	63.3	67.7	71.8	76.0	80.2	84.3
7.0	57.5	61.2	65.2	69.2	73.2	77.1	81.1	84.9
7.5	59.5	63.2	67.0	70.7	74.5	78.2	81.7	85.5
8.0	61.5	65.0	68.5	72.0	75.5	79.1	82.5	86.0
8.5	63.2	66.5	70.0	73.2	76.5	79.9	83.2	86.4
9.0	64.8	68.0	71.2	74.2	77.4	80.6	83.7	86.7
9.5	66.2	69.2	72.7	75.2	78.2	81.2	84.3	87.1
10.0	67.4	70.3	73.2	76.0	78.8	81.7	84.6	87.4
10.5	68.5	71.2	74.2	76.7	79.5	82.2	85.0	87.6
11.0	69.5	72.2	74.9	77.4	80.2	82.7	85.3	87.9
11.5	70.5	73.1	75.7	78.0	80.7	83.2	85.6	88.2
12.0	71.4	73.8	76.3	78.6	81.2	83.5	86.0	88.4
12.5	72.2	74.5	76.9	79.3	81.6	83.8	86.2	88.5
13.0	73.0	75.1	77.5	79.5	81.9	84.2	86.5	88.7
13.5	73.6	75.7	78.0	80.0	82.3	84.4	86.6	88.9
14.0	74.3	76.2	78.3	80.5	82.6	84.7	86.9	89.0
14.5	74.8	76.7	78.8	80.8	82.9	85.0	87.1	89.1
15.0	75.2	77.2	79.2	81.2	83.2	85.2	87.3	89.3

biased analysis designed to give him an honest picture of the operation of his heating plant, rather than simply a door opener for salesmen.

5. BY PERSONAL CALL

Once more the "guaranteed best" method of telling your story is by a trained oilburner salesman who can tell the story to the homeowner by word of mouth.

Any one of the five methods, or any combination of them, can and should be used—the important thing is to be sure that every owner of an obsolete oilheating plant gets the message.

We have now taken a look at the market and have found a way to locate that market. Finally, we have sent our message to the homeowners who make up that market, and at this point we should have a number of appointments for actual surveys. The most important requirement of our overall campaign is that your men are trained to do an accurate and honest job of surveying itself. They must be trained in the use of approved flue gas analyzers, draft gauges and stack thermometers. Only by accurately testing the performance of the heating plant can you know its efficiency, and only by the best use of these scientific instruments can your prospect be convinced that the results of the survey are honest.

In order to check the overall efficiency of the present heating plant, you should first estimate the total load on that heating plant and check its rating, with proper estimates for heating loss, for piping loss and pick up, etc. Note that the survey form contains spaces for all such information. After you have established the load, make a test reading, following these steps:

1. Make a hole not larger than ½" in the side of the smoke pipe, not more than 12" from boiler or furnace outlet, and on the heating plant side of the draft control.

2. Insert your test tube—draw the flue gas into your analyzer and make a gas reading.

3. Use the same hole to establish a stack temperature and draft.

Now use the stack temperature chart and establish the overall efficiency. Then deduct 10% for radiation and miscellaneous losses, and the overall efficiency plant is established.

YORK-HEAT FUEL ECONOMY SURVEY

Owner's Name: .....

Address: .....

City and State ..... Date: .....

HEATING SYSTEM	PRESENT OIL BURNER
Make:	Make: .....
Number:	Model: .....
Type: Warm Air ..... Gravity	Year Installed: .....
Hot Water ..... Forced	CO^2 ..... % at Chimney Connection
Steam	Stack Temperature ..... °F
Boiler Rating ..... Sq. Ft.	Over-all efficiency: (SEE CHART) ..... %
Installed Radiation ..... Sq. Ft.	Deduct for radiation and miscellaneous loss: 10.0%
Pipe Loss and Pickup (Add 30%) ..... Sq. Ft.	OVER-ALL EFFICIENCY
Total Load: ..... Sq. Ft.	OF
Furnace Rating: ..... B.T.U.	
Heat Loss of Building ..... B.T.U.	PRESENT BURNER ..... %

FUEL SAVING ANALYSIS

York-Heat CO^2 Percentage 10%	.....
York-Heat Over-all Efficiency ..... %	.....
Present Burner Over-all Efficiency ..... %	.....
Difference in Over-all Efficiency ..... %	.....
	SUBMITTED BY:
SAVINGS ..... %	.....

Once you have established the overall efficiency of the present heating plant you have actually performed for the homeowner a valuable service in giving him an honest picture of exactly what his heating plant is doing. The only way in which you can serve that homeowner further is to prove to him just how a new plant or a new burner will increase efficiencies and show actual savings.

In order to do this, make the following assumption: The overall efficiency of a modern up-to-date burner can readily be estimated by assuming that it will produce at least a 10% CO_2 and that the stack temperature will be at least as low as the burner to be replaced. Again, refer to your overall efficiency chart and establish the overall efficiency of your new burner. From then it is a simple mathematical problem. Let's say that your new burner figures to 63% and that the old one represents a 45% operating efficiency. The saving is clear—18% difference in efficiency alone. To estimate your fuel savings, deduct the overall efficiency of

(*Please turn to page 120*)

Installation Specialists

How Indiana Group makes Conversions in 10 to 12 man Hours

A FEW YEARS AGO the traditional furnace manufacturers of the Midwest were having trouble developing a trade for oil furnaces because the local furnace dealers and sheet metal shops didn't understand oilburning and some didn't want to. As oil has grown in favor as a fuel many of them decided to get into selling such equipment. Some furnace dealers sent their men to schools or to factories to learn about oilheating. Others were able to go on as they always had and when it came to handling oil furnaces they got outside experts to make the installations.

This is rather common practice in the heavily settled industrial areas around the lower end of Lake Michigan . . . towns like Gary, Hammond, Whiting and Indiana Harbor. One of these installation outfits is Double L Heating Service at Hobart, Indiana, 12 miles south of Gary. It is operated by Loren Eshelman and his brother-in-law Larry Rearick. In a recent report to the magazine, Eshelman mentioned that his crews use only 10 to 12 man hours of labor to make a typical conversion burner installation, including all electrical work. Of course these are practically all warm air jobs with no hot water hookup included. Stopping off to spend a few hours with this group brought some interesting observations on how it's done.

Throughout the year there are four of them, Loren and Larry and two good men they hire. In summer and fall when the installations come fast they hire four more men and operate as four crews of two men each . . . one of the experts and one helper in each crew.

As a general principle the crews do not come into the shop in the mornings or at any other time during the rush months. They go directly to the job and they find all of the materials have been delivered. The dealers furnish the tanks in addition to the burners, while Double L supplies all other installation materials, and the plan is to have all of this material at the site when the crew arrives.

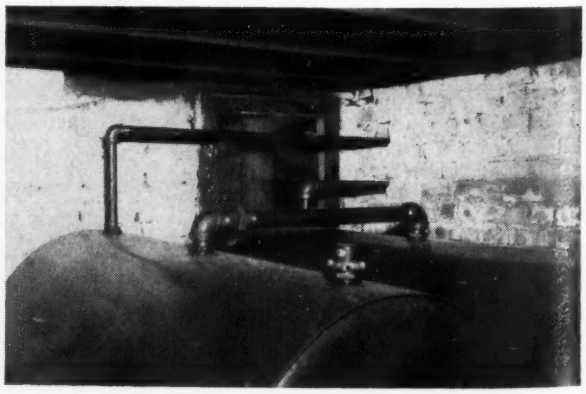
Of course some shop work is done during the course of the year, but this is mostly by the permanent group on quiet days. Prefabrication in the shop of all pipe work is one of the important ways for saving time. Tank fill and vent lines as well as the tie lines on double tank jobs are all cut to exact length and threaded in the shop. A power vise is used, with bulldog dies. These are heavy dies and when a threading is completed the die is released with a lever, instead of having to back it off. The boys use Sulflo cutting oil which they can reclaim from the scrap drum and use several times.

Timesaving Details

Looking over an installation in progress, a number of the time saving methods were easy to understand. The boys use prefabricated chambers, or actually they are R&I preformed sections which they can quickly put together in different shapes. As backfill behind these sections they use slag wool (similar to rock wool) and pack it in tight. Their reason for not using a loose backfill has to do with bricking up the ashpit door. This of course is one of the final operations at the burner. They set the bricks in the ashpit opening with insulating cement, for they have found that this helps prevent vibration noises that are always magnified through the duct systems on warm air jobs. With the bricks in place they plaster the face side and get a smooth job. This is much easier, they point out, when using the slag wool backfill because they push the bricks against something solid, which they did not have with the loose backfill.

The group has cut the average time for the electrical work from six man hours to four by using Thinwall conduit and Greenfield flexible tubing. This Greenfield tubing looks about like Bx cable but it has no wires in it. The boys run their own wires through it with the result that they can go through a box without cutting the wire. On the job visited there was only one taped wire—the ground. Another time and cost saving item was the use of an aluminum cap on the vent line, right on the horizontal pipe, without using a separate vertical section. Then there is a saving in ready-mixed concrete, for basement wall patching and other purposes, put up in small bags.

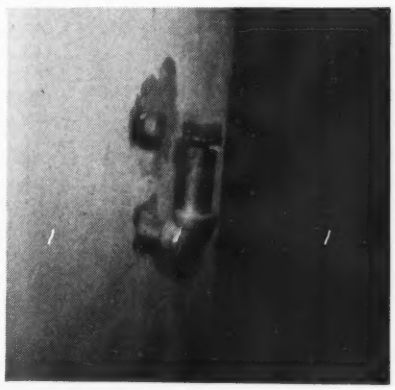
The Double L group installs regularly for four dealers, sometimes for others. The burners handled are Oil-O-Matic, Aldrich, Sun Ray and Sears' Homart. The charge for installing a conversion job with one tank varies between $90 and $110 including all installation materials but the tank.



Pipe work *for this company's installations is all precut to standard lengths and threaded at the shop, saving a lot of time at the job. Loren Eshelman, partner in the installation firm, explained the time saving short-cuts that allow them to use high priced men and still keep the charges moderate.*

Then if there's a second 275 tank there's an extra $10 installation item.

Sears, Roebuck, at its Gary store, sells upward of 100 jobs a year and gets $279, plus an extra $75 for the second tank if wanted. In addition, they sell a lot of burners, controls and accessories over the counter to anyone who wants them. This is understandable in a great industrial area where there are thousands of high grade mechanics working in the mills and they undertake their own oilburner installations. While an expert could probably find flaws, these men can satisfy themselves and keep their homes warm without shoveling.



Vent and fill *lines, before patching masonry. Aluminum vent cap is attached to horizontal pipe.*

Double L and its people are tied up with the steamfitters union and the rate for any skilled man is $2.60 an hour plus 3% pension fund and insurance. With that kind of rates you have to find ways to cut the time on average installations or the public would pay through the nose for oilheating work.

The boys at one time also did oilburner service work, but they quit it. They were keeping too busy on installations. Getting home at six o'clock they'd find a string of service calls that would keep them up half the night. So now they only service large heavy-oil jobs where some special situation calls for well-paid knowledge; they also install these heavy jobs within a 75 mile radius.

Naturally all of the domestic installation work cannot be simply conversion burners. There are boiler jobs. A two man crew installs one of these with its oilburner in elapsed time of 12 to 16 hours, which is 24 to 32 manhours. They don't put in furnaces, because that is the work of the sheet metal industry, not steam fitters.

Farm out Service

In that particular section of the country these furnace shops don't often render their own oilburner service to their customers. There are separate burner service organizations. Around Gary they are mostly steel mill mechanics who band together and rotate the burner work off-shift. In other words, each man at the mill works a different shift each week, rotating through the three shifts. So these spare-time oilburner men get themselves placed on different shifts so that some one is always available for emergency calls. Their minimum charge is usually $5.

Eshelman and Rearick do some gas work, but not much. Hobart, their home base, is getting 100 gas central heating jobs released this fall, out of 500 that the utility has promised to take on before too long. It's a 1,000 Btu gas but not cheap . . . about the same fuel cost as with oil. Then the outfit has had some experience with LP Gas jobs. They have put in two dozen for central heating but several of those came out—the fuel cost was too high. This Fall they have put in 10 in such way that they can later be switched to natural gas. The homeowners already have the three necessary parts to be substituted in the switch when the time comes.

A study of the oilheating industry in the Gary neighborhood can only leave you guessing as to how it may all turn out. The oilheating industry has largely been built through serious consumer responsibility on the part of the dealer. We have been taught that this responsibility should not be divided. They have told us that the dealer who sells the equipment must install and service it. In 70% of cases the same dealer also supplies the fueloil, so he's alone responsible for the better living the customer gets through oilheating. When you divide that responsibility four ways anything can happen. So we don't much like the Gary system.

But we do like Double L Heating Service, Loren and Larry, for the kind of thinking they do and the work they do. They have made a science of installing burners. They have eliminated waste all along the line. In a market where wage rates are high their installation fees are conservative. Their men live well and in turn they work well with the bosses to save every minute of time. A less competent, less intelligent organization could do a lot of harm to oilheating in that Northern Indiana market.

OPS offers margin Relief in Midwest

SUPPLEMENTARY REGULATION 3 to Ceiling Price Regulation 17, issued by the Office of Price Stabilization to be effective October 30, permitted increases in tank wagon prices of kerosene, fueloil and diesel oil in a dozen Midwestern states. Section 2 of the Regulation, entitled "Adjustment of ceiling prices," provides:

"(a) The tank wagon ceiling price of a seller of kerosene, distillate type burning oil and Diesel fuels may be adjusted to a price no higher than the selling price for the same grade and quantity on December 13, 1950, or the nearest date prior thereto that a sale was made, plus the amount specified for each geographical area listed in this paragraph:

"(1) One-half cent per gallon in the states of Wisconsin, Minnesota, North Dakota, South Dakota, Iowa and Kansas.

"(2) Three-tenths cent per gallon in the states of Arkansas, Indiana, Missouri, Nebraska, Michigan and Illinois (except Metropolitan Chicago).

"(b) Sellers of products covered by this supplementary regulation whose ceiling price has been established by other ceiling price regulations heretofore issued may continue to use such established ceiling prices."

The Metropolitan Chicago area is defined as the City of Chicago and the area contiguous thereto, where railroad switching rates apply on movements from any refinery or bulk plant in Lake, Cook, DuPage and Will Counties in Illinois and Lake, Porter and LaPorte Counties, Indiana.

Oilheating Outlook for 1952

In spite of critical material Problems, Sales should equal 1951

by

Peter B. B. Andrews*

(Editor's note: This is the appraisal of 1952 prospects for the oilheating industry, based upon the thinking of an important group of economists looking in from the outside, and contains food for serious thought. One important conclusion is that it will be easier to get plenty of equipment made than to get it sold, unless sales activity and promotion are stepped up.)

IN SPITE OF RESTRICTIVE Government regulations and shortages of raw materials, installations of oilheating equipment are expected to be as large in 1952 as in 1951.

Based on the production materials likely to be obtained by oilheating equipment manufacturers and the demand prospect, the writer and his 300-man board of future-sales-ratings associates have assigned one of the top sales ratings for oilburners in 1952.

An industry which must be considered essential, particularly in a military economy which needs efficient heating and comfort for the best health and industrial productiveness of the nation's population, the oilheating industry should install about as many burners in the coming year as in the year 1951, which will approximate 700,000. While that is about a 17% reduction in 1951 below the big 847,000 total in 1950, that year, in turn represented the large gain of 38% over 1949.

Anticipated adequacy of fueloil is expected to be favorable to the oilheating market; consensus is that there will be enough fueloil for home-heating and industry unless extraordinary and unforeseeable conditions develop. It is indicated that distributors of oil products have been active this summer building up their storage of fueloils, and primary stocks of fueloils are expected to build up more sharply in the near future as major oil refiners work hard to boost their own supplies in anticipation of high winter demand. Crude oil production is expected to stay up close to or above record levels. This is considered necessary to keep needed refinery output at its high level and at least maintain crude oil stocks.

The market for oilheating equipment is expected to be stimulated, too, by lessened competition from gas-heating installations, since so many cities are under restrictions as to gas usage. Then, too, despite general copper shortages, it is believed that copper tubing and related supplies are adequate for substantial installations in the months ahead.

Housing, too, is expected to be better than current pessimists indicate. The residential construction industry turned out about 1,400,000 homes in 1950, including some public projects, and for 1951 some pessimists visualized as low an output as 400,000 homes. The Government is now trying to hold it down to about 850,000, although the final figure will be closer to 900,000. The Board foresees approximately an equivalent amount likely to be built in 1952, possibly more. A minimum of 1,000,000 homes a year is considered needed to house new families and replace dwellings that become obsolete each year or are destroyed by storms, fires and floods.

It is noted that defense workers and service families are clamoring for homes around newly activated defense areas, while the pressure of high marriage rates, high birth rates and rapid family formations is also stimulating housing demand. Particular note is made of the disparity between home building of recent years and the marriage totals as an indication of the underlying oilburner demand:

	HOME BUILDING (Starts)	MARRIAGES (U. S. Total)	DIFFERENCE	CUMULATIVE DIFFERENCE
1950	1,396,000	1,669,934	273,934	11,972,032
1949	1,025,100	1,579,798	554,698	11,698,098
1948	931,300	1,811,155	879,855	11,143,400
1947	849,000	1,992,354	1,143,354	10,263,545
1946	670,500	2,291,045	1,620,545	9,120,191
1945	209,300	1,612,992	1,403,692	7,499,646
1944	141,800	1,452,394	1,310,594	6,095,954
1943	191,000	1,577,050	1,386,050	4,785,360
1942	356,000	1,772,132	1,416,132	3,399,310
1941	706,100	1,695,999	989,899	1,983,178
1940	602,600	1,595,879	993,279	993,279
Totals	7,078,700	19,050,732	11,972,032	11,972,032

These figures graphically portray the inevitability of demand for homes and heating equipment. It will be observed that the cumulative difference between homes started and marriages is 11,972,032—an all-time, record-breaking backlog of demand. The aggregate figures are not entirely applicable to potential demand, of course, since these home-building starts represent non-farm dwelling units, and home building on farms is not included.

A large percentage of these marriages have yet to be satisfactorily housed and outfitted, and the pressing fact of the need is there. Besides the large number of new dwellings which must sooner or later be built, there are probably more than 5,000,000 old homes in need of repairs and replacements, requiring great amounts of home-building and heating equipment. About 85% of the country's 46,000,000 dwelling units are over ten years old and likely to need modernization.

The above estimates are based on the writer's survey among the 300 Government and industrial experts who comprise the board of analysts of Future Sales Ratings and who determine the ratings on sales prospects for the 100 leading American industries. The ratings of the complete list of these industries are published quarterly in "Sales Management."

So that the reasoning of this Board

*Economist, Future Sales Ratings Associates.

in assigning the Oilburner Industry a top, five-star rating could be obtained, FUELOIL & OIL HEAT asked the writer for a study explaining why the situation was so viewed.

Need for Advertising Seen

Preceding data indicate the Board's thinking; actually, the indispensable utility nature of oilheating as a factor in maintaining comfort and fundamental health of the country is the common denominator of this reasoning. It is felt that whether it be eventually by actual allotment, by appeals because of essentiality, by effective use of some substitute materials, or by a combination of all these factors, the output of oilburners (viewed in conjunction with high inventories) will be such that heavier advertising and promotion will be necessary to move some of this equipment into end-use channels.

Assuming no major world war, the Board feels that the national-defense program and overseas-help program will move along more slowly than now preliminarily projected, relieving the heavy drain on raw materials. Consensus is no world war in the foreseeable future; Russia is considered to have gone well past its strategic timing, and by next spring we will be vastly stronger and more obviously an unconquerable opponent.

Important improvements are considered to be in the offing, and desire not to be burdened with obsolescent weapons is becoming a planning factor now. Recently, a $5,000,000,000 added appropriation in the aircraft program was cut to $1,000,000,000, and the Board feels that no great acceleration of the general armament program is ahead—barring World War III—because of the growing wish of our military leaders for only the most advanced weapons at all times following the adequate equipping of our current armed forces.

It is recognized that we must be prepared, of course, for Russia's continued strategy of kicking up sporadic troubles in various parts of the world, and there is no indication of an immediate slowing down of the armament program. There are currently not enough materials to go around, but some members of the Board attribute this to maldistribution of these materials at present and the overstatement of requirements, which are expected to be much smaller for many, in the final result, than recently shown.

Anxiety not to be caught short has motivated much of the placement of high requirements; some of the Board now indicates there will be a crackdown on those padding and duplicating requirements. Also likely to unloosen large amounts of raw materials is the coming heavy campaign on compliance by Government officials. Recently the National Production Authority established an administrative court to hear cases of alleged violations of N.P.A.'s orders and regulations. It will determine whether the respondent has used materials or facilities in a manner prohibited by N.P.A. orders or regulations, made a misrepresentation with regard to the allocation of materials, or violated N.P.A. orders or regulations in any way.

Inventories cut down

Huge inventories of raw materials, however, have been cut down in another way; they have gone into end products in many instances. The majority of the Board feels that the rate of consumer durable goods output in the fiscal year 1950-51 was far beyond anything that the U. S. economy could possibly absorb. They emphasize that some analysts who decry the sharp cuts in durable goods output effected by Government officials lose sight of the fact that the public, loaded to the gills with the anticipatory buying of the post-Korean outbreak, can't absorb more consumer durable goods than are now being produced anyway. If this buying were not war-anticipatory, it is believed that much of it would have taken place in 1952, 1953 or even 1954 in some cases. Much of this frantic demand was borrowed from the future.

The point is being made, of course, since it affects raw material supply. The automotive companies, for example, have about $6,000,000,000 worth of defense orders, but it may be another year or possibly two before the large number of defense plants now being built will be ready to add large volume output.

Even at the time that the fantastic glut of automobiles, refrigerators, washing machines, vacuum cleaners, dishwashers, television sets, and related consumer goods were being produced and were consuming raw materials at a record pace, a considerable defense program was under way. Some of this high production was made from large inventories, but, even so, it is considered significant that now, with the huge consumer durable goods industry of the country producing about half what it did at the peak rate of the post-Korean period, an ultimate betterment in raw materials availability must ensue.

Materials output expanding

Meanwhile, capacity and output of critical materials generally are on the rise. In the next three years there will be some impressive expansion. The 1951-53 program calls for boosting steel ingot capacity 13,700,000 tons over the January 1, 1951 capacity of the industry—104,200,000 tons. Most of the increase can be achieved by the end of 1952. It is felt that about 4,648,000 tons capacity can be added by the end of 1951, with about 3,209,000 tons additional coming in the first six months of 1952, 4,514,000 tons in the second six months of 1952 and 1,346,000 tons more in 1953. The expanded capacity itself is well beyond anything which the Board considers will be required by the armament program as it is now progressing.

Aluminum production is expanding rapidly, too, and copper is coming up, though that is by far the tightest of the three controlled materials. Current aluminum capacity is about 800,000 tons per year, with a planned increase of at least 500,000 tons more. A substantial amount of this tonnage will have been gotten in by spring of 1952 and most of it by late 1952.

Meanwhile, it is indicated that we are importing almost three times as much iron ore as we imported before World War II, 50% more copper, ten times as much lead, eight times as much zinc, five times as much bauxite and twelve times as much aluminum. The Government has recently exempted from price control a number of industrial import ores and materials having

strategic importance to the armament program. Moreover, in one recent month the Government signed 35 new mineral project contracts in 14 states.

This is not to imply that the Board anticipates overnight improvement in the raw materials situation. It is still considered tight but in a state of maldistribution, with vast improvement on the horizon as the keen American production ingenuity asserts itself.

Stretching allotted Materials

In any case, given even the status quo, it is believed that much can be accomplished in stretching the materials alloted—again with the ingenuity which typifies the efficient oilburner manufacturer. Redesigning equipment and using substitutes for copper, steel, aluminum and other metals is increasingly being done.

Copper can be stretched by use of brass plating or cast iron. To save aluminum, plastic is being substituted in some items. Enameled, plated and even stainless clad carbon steels conserve alloys when used in place of stainless steel. Brass plate can be put on steels for specialized uses. Leaner alloys can sometimes be substituted. Boron, a comparatively plentiful alloying material, is expected to be used widely as a substitute for scarce nickel, chromium and molybdenum. It can be used successfully in shafts, gears, bearings, machine tools, tractors, axles and armor plate.

The Board believes that the stretching of materials and use of substitute materials will help the oilburner industry to increase output beyond what materials allotments would indicate. It is pointed out that one manufacturer in another industry has made great savings in use of his controlled materials by using 80 alternate materials in his manufacturing process. The company is planning to introduce 40 more alternates which will conserve still more scarce minerals and metals and will increase substantially the output of its end products.

Another way in in which the oilburner industry is viewed by the Board as being able to improve its production is by way of getting more materials through appeals. That is an avenue which generally might not apply to the majority of industries, but oilheating is seen as rating high essentiality because of the country's present need for great industrial efficiency and labor saving. Thus, since the criterion of additional allotments of critical materials is whether the denial will adversely affect public health, safety or welfare, the argument in favor of oilheating appears strong.

Granting that the oilburner manufacturing industry in 1952 might be able to get more materials than now generally anticipated, reflecting the Board's expectation that the armament program will not move along as fast as now planned, bigger cuts of the materials pie possible through natural curtailment of consumer durables production, and the development of greater materials-producing capacity; and realizing, too, the potential benefits from stretching controlled materials and using substitutes, as well as the considered favorable essentiality basis for appeals by the oilburner industry, there arises the question of labor adequacy for 1952.

Actual armament production gets the top essentiality call for skilled labor, and there could well be some weaning away of such labor from the oilburner industry, even though some of these companies also have military contracts. Consensus is that heavy defense industries, by offering higher wages, are gradually stripping the lighter industries of manpower. Some big plants, for example, are hiring away blueprint men and making them tool designers.

Tight Spots in Labor

Despite a number of layoffs throughout the country, largely as a result of decreased consumer buying and consumer durables production cuts, there are many very tight spots. One indication of the extent to which the nation has dipped into its pool of unemployed during the high economic activity of 1951 is the sharp drop in unemployment rates for workers in the heavy industry occupation groups. Unemployment rates for skilled craftsmen have fallen from 6.9% last year to 2.2% now; for semi-skilled workers from 7.8% to 4.2%, and for unskilled from 14.3% to 4.8%.

While most members of the Board look for a fairly tight labor situation in 1952, some are confident that the labor supply will be ample for the high production contemplated under the Wilson Plan. That plan calls for industrial expansion to the point where national production will be able to provide for civilian and defense needs.

Oilburner manufacturers are considered to be in a better position than the average heavy industry since they can logically absorb workers from the declining automotive and related consumers durable goods divisions. Competition for competent workers, however, is expected by the Board to be keen, and an ample supply of every type of worker is by no means assured.

Burner Production should be high

All things considered, the Board foresees a substantial output of oil burners in 1952. Question then remains as to the ability and willingness of the market to buy this equipment. There is little doubt as to the ability to buy. Financial condition of American business has never been stronger. The current net working capital position (current assets in excess of current liabilities) approximates $80,000,000,000, which is about three times that of pre-World War II days. Moreover, not only has lending at attractive rates been easy, but, reflecting the bull market in stocks and bonds, sales of new corporate securities have recently been at record highs. Financing expansion is easier, too, now; the Government permits defense-type plants largely to be charged off in only five years, to encourage private industry to enlarge capacity. In World War II the Government financed most of the expansion; now private industry does it.

The public, too, has the wherewithal to buy; there is an uptrend in personal income, which now is running at the record rate of about $253,000,000,000 annually, compared with a $238,000,000,000 annual rate in the fourth quarter of 1950. Disposable personal income (after taxes) is running at an approximate $224,000,000,000 annual rate, compared with a $211,600,000,000 annual rate in the fourth quarter of 1950.

(*Please turn to page 122*)

Not for the "Carriage Trade"

Koenig & Goller successfully sells high-priced Units to Staten Island's low-income Families

by
Bert Dunphy

THE FACT that about 75% of the sales of Koenig & Goller, Inc., General Electric distributors on Staten Island, N. Y., are made to low or moderate-income families is not unusual on this compact 9 by 18 mile island that has a high percentage of such families, but the operation is significant in that the firm concentrates on selling de-luxe installations that sometimes cost more than the assessed valuation of the home in which they are installed.

A. H. Koenig, president, is a veteran of close to 25 years' experience in the oilburner industry, having started in 1927 as a serviceman for the Quiet May dealer on Staten Island. Before that he had been an electrician and four years later he went to work for a sub-distributor who handled General Electric sales on Staten Island for the metropolitan New York distributor. He acted as a serviceman and service engineer and subsequently became a G-E dealer, so that since 1931 he has been directly or indirectly connected with the company.

In 1943 when G-E established distributorships, Koenig & Goller took over the operation for Staten Island, sold to other dealers, stocked equipment and engaged in retail selling itself. Today, Koenig has 3 sales and service dealers under him, but derives his greatest volume of distributor sales from 18 sales dealers who are affiliated with him. These consist of plumbers and heating contractors, who make the sale of the oilburning unit, with help when needed, and then turn over complete responsibility for its installation and service to Koenig.

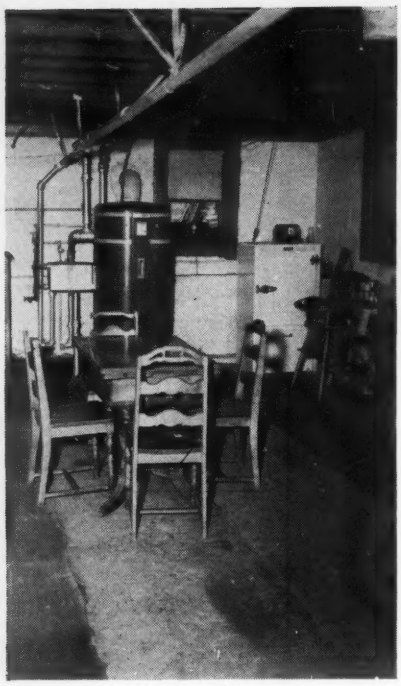
He explains that much of this represents business that his company normally wouldn't hear about, since the sales dealer digs up the lead for the sale from other plumbing or piping work he is called upon to figure.

These sales dealers are induced to put forth the extra effort that the sale of a G-E unit entails over a conventional conversion job because they know that they are relieved of the responsibility for everything connected with the installation after the sale has been closed.

Koenig's organization maintains a complement of 18 service and installation men—28 men in the rush season—has three girls for routine office work and leans heavily on the shoulders of Henry W. Klamt, the firm's vice-president and secretary, who supervises the details of all service and installation work. Klamt is the only other officer in the corporation since Koenig bought out Goller's interest in the business a couple of years ago.

Three warehouses are maintained at strategic locations, there are garages behind the office building and a shop in the cellar. The company owns a plot of ground on which it is planned to erect consolidated headquarters.

A. H. Koenig, *president of Koenig & Goller, Inc., Staten Island, N. Y., chats with Mrs. Immaculate Mastiagiacoma about the General Electric unit his company has installed in her home. A complete system, including 9 radiators, tankless heater, clock thermostat and 550 gallon storage tank, was put in at a cost of $2500, even though the home formerly was a summer bungalow and a chimney had to be built. This is typical of many de-luxe installations that Koenig has made for low and moderate-income families on Staten Island, where he concentrates on selling quality, long-lasting equipment.*



This job *was complicated by the fact that the owners wished to use the basement for living quarters. The first floor is heated by a regular steam system and the basement is served by 4 radiators, connected below the water line, with circulator and flow control valve as in a hot water system. Two thermostats control the unit, one directly to the master control, the other to the circulator relay.*

This year Koenig estimates the total number of units sold will be close to 500, with no more than 50 of them representing conversion burner installations. As a matter of fact, the company has averaged 400 units annually since the war and a correspondingly small percentage each year has represented conversion work.

General Electric units are sold almost exclusively, with the conversion job proposed only when it is apparent that there is no possibility of making any other sale. Koenig does much of the retail selling himself, and has five other salesmen, with each man assigned his own territory and given credit for any sale made there regardless of where it originates or how it is closed. They are paid exclusively on a commission basis and each salesman sold or received credit for enough sales last year to average more than $6,000 income.

By way of explaining the concentration of sales to moderate-income families, Koenig points out that Staten Island is not the "carriage trade" kind of territory. The sales presentation made to owners of low-priced homes only briefly extols the advantages of comfort and economy, but instead drives hard at the "quality and long-life of the G-E story." "After all," Koenig says, "most of these people in the low-income brackets do not understand technical refinements, but have their minds set on equipment that is long-lasting and probably could not rectify a 'mistake' purchase of a cheap or bargain installation. So, we try to show them how they stand to get long-lasting equipment by buying from a company that specializes in quality equipment, a company which is anxious to guard its reputation and a company which will be around tomorrow to stand behind the products it sells today."

A key point in the presentation is the use of a loose-leaf binder containing photographs of many installations that the company has made in recent years, some of which are reproduced on these pages. Each shows the units installed, slicked up and painted in the way that all jobs are finished, and includes a companion picture of a view of the home in which the system was put in. Aside from the personal angle where a prospect might see an installation made in a home similar to his, or in a friend's house, the picture book helps to demonstrate the workmanlike job done, shows the equipment and accessories and permits the salesman to go into a before-and-after story of the benefits derived from the installation.

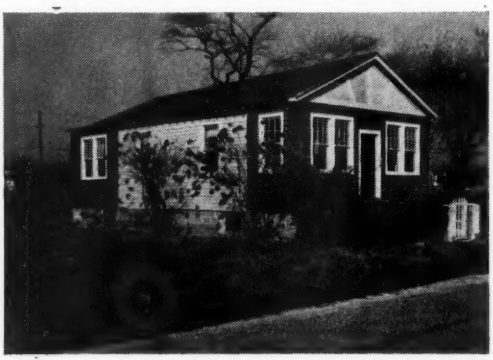
But always, the sales presentation veers back to the quality and long-lasting equipment that the homeowner is considering.

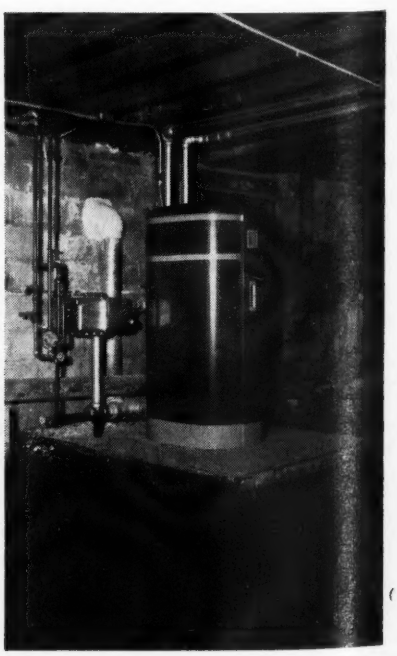
Koenig says his customers are satisfied and it's apparent that they must be, since 90% of new leads come from recommendations of present users. To reward them for such service, after a lead has been turned into a sale, the user who made the recommendation gets a free delivery of 100 gallons of fueloil for a conversion job and 200 gallons when sale of a complete unit is involved. This word-of-mouth advertising is another incentive to make every installation a good one.

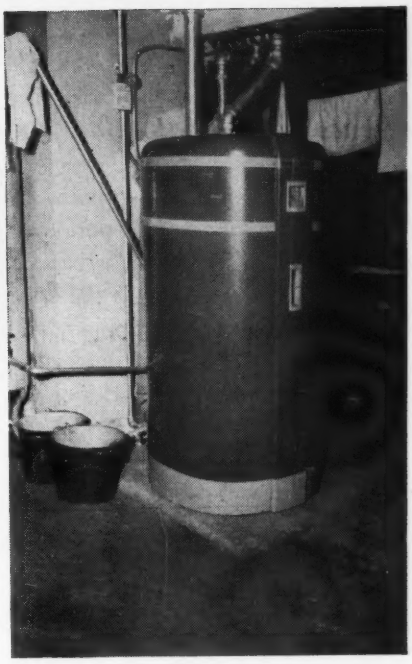
No fueloil is sold directly by the company, principally to avoid conflict with the dealers Koenig supplies, but the company is a distributor broker for Esso Standard and arranges with them for new customers.

For its installation work the com-

The owner *of this moderately-priced house invested $1500 in a G-E unit that provides steam heat to 5 radiators and a tankless hot water heater. The cellar consisted of a dirt floor which made it necessary for Koenig to construct the concrete slab upon which the unit rests.*







Another *Koenig installation in a low-priced house that includes the G-E unit shown, 189 sq. ft. of radiation and a 30 gallon galvanized tank at a cost of $1685.*

pany has licenses to do plumbing and electrical work, but does plumbing only when it is unavoidable and finds it more economical and practical to farm out the electrical work on contract.

Eight of the 18 installation and servicemen are used for service work exclusively, taking care of the 4,000 accounts of the company. About 60% of these customers are under service contract for $22.50 a year. This takes care of all emergency burner service and includes an annual cleaning job, but does not cover parts. The cleaning is performed at the time the new contract is signed, and not necessarily done during the Summer. This, naturally, permits more orderly scheduling, keeps the men busy even during slack times and prevents all the cleaning jobs from coming up at the same time.

Koenig is happy about the number of customers on contract because, as he says, the income from this source goes a long way toward maintaining the service department, with service income from other sources regarded as "just so much gravy."

A common complaint was heard during a visit to Koenig's shop: "Where can I find competently trained servicemen?" Koenig, from his experience, has found that the average school is more interested in selling a man a course in oilburner service and installation than in determining if he has the aptitude to absorb the training he will receive. He doesn't expect such schools to turn out experienced mechanics, but his experience with some trade school graduates has been disappointing.

He recently was named to a committee that is setting up oilburner courses in the Ralph R. McKee Vocational and Technical High School in St. George, Staten Island, under the program of the New York Board of Education described in the November issue of FUELOIL & OIL HEAT. These courses are expected to commence next September and Koenig is optimistic that proper screening of students will result in the kind of trained apprentice that will fit into his organization and other companies.

The families who offer the greatest sales potential to Koenig are made up of people who, by and large, are honest and hard-working, who don't arrange to purchase major improvements for their home until they are financially able to do so. Most boilers or furnaces that Koenig replaces are coal-fired, but about 25% of them are those that are using conversion oilburners, with the homeowner induced to look for other equipment either because of high oil bills or because the system as a whole has begun to disintegrate from old age.

One point in Koenig's favor can be seen readily from some of the "Rube Goldberg" installations shown in "before" pictures in his sales book. These, apparently, were the result of people buying what they could when they could afford it, or buying what they thought was the best they could obtain for the price they could pay. These were installations that provided heat, but not very efficiently or economically. There certainly is no problem here to effect substantial fuel savings when replacing them with units designed from top to bottom for oilburning.

It's not enough to say, after a rudimentary examination of Koenig's business, that "there ain't no such animal." It seems hard to believe that so many sales of quality oilburning installations have been made so consistently to the low and moderate-income families that are prevalent on Staten Island, and doubtless overcoming sales resistance to the higher-priced jobs represents a lot more spade work and plain hard selling than the telling of the story indicates.

But, Koenig obviously has made a success of it and has built up a sizable number of customers who are convinced they got their money's worth.

❖

William B. Cooper has been appointed sales manager of engineered products, American Radiator & Standard Sanitary Corp., Pittsburgh 30, Pa. Cooper will head a new department handling the sale of air conditioning, cooling and specialized heating equipment, organized because of the number of new products American-Standard is developing in this field.

A. F. Zumbrink has joined Bowser, Inc., Fort Wayne, Ind., as sales manager of its Oil Marketing Equipment Div., to direct and coordinate sales activities of the company's line, including bulk plant and tank truck meters. Before coming to Bowser, Zumbrink was sales manager, Dayton Pump & Mfg.

Management Manual for Fueloil

Coastal Oil provides for its Distributors a basic Guide for Control

As FUELOIL MARKETING becomes progressively more complex and competitive, one of the primary needs of the industry is management guidance. This has become more clearly apparent in recent years, particularly since the end of World War II.

Once a year several hundred readers of FUELOIL & OIL HEAT are asked what they need in feature articles to help them in their work. In each of the past three years the greatest number of requests has been for management material. Prior to that the majority of suggestions had been for technical help, how to install and service oilburners, boilers, furnaces and accessories. The technical requests still run a close second and probably always will, but the greatest single concern of the bosses today is how to make a good profit from limited margins.

Recognizing this trend through sampling of opinions of its own distributors, Coastal Oil Co., Newark, N. J., has published a management manual of considerable proportions.

Coastal is one of the largest of the independent primary fueloil suppliers on the East Coast. It brings in cargoes of product from the Gulf to its tidewater terminals and distributes by barge or transport truck to the local bulk plants of marketers. It also sells under-the-rack at its terminals to distributors who do not operate their own plants.

For some years Coastal has been publishing an effective booklet, "Coastal Oil Way," nine issues a year, for circulation among its customers. The contents have been largely management material.

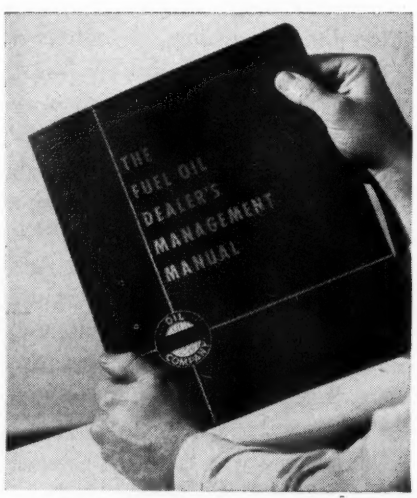
Why the independent Supplier?

The question has often been asked, "Where do these independent primary suppliers fit into the Eastern market . . . couldn't these local fueloil distributors get their product from the major companies direct instead of buying through a middleman?"

No doubt they could, but the middleman in this case has justified his existence, and his rapid growth, by supplying a more direct, more personal kind of management assistance.

Of course the oil price is the same through either type of supplier, and also the oil itself is the same since most of it comes from the refineries of the major companies.

The large independent terminal operators buy in full cargoes, six million gallons at a crack, and they have large storage capacity. For the majors they provide a cushion between the ups and downs of refinery output, and for this facility they are permitted a margin ranging between a third and a half cent a gallon, depending on discount schedules of the moment. Out of that spread they operate their terminals, their field



forces and the cost of their helps to the local distributors.

Along the Atlantic Seaboard the two dozen companies of this nature have been important influences in the fast growth of the market.

Coastal started back in 1938 with its large marine terminal at Port Newark. Its founders, Louis E. Marron and Wiley Butler, are now respectively board chairman and president of the company.

The new fueloil manual is put out in loose leaf form. At the start it contains general, sometimes introductory, material on 11 categories of business operation. As time goes on, additional sheets will be sent to insert under the department headings . . . new thinking, new development, more detail.

The 11 divisions of the book are Administration, Finance, Personnel, Plant Operation, Product Delivery, Trucks, Oilburners, Service, Sales and Advertising, Public Relations, Technical. On the opposite page are illustrated typical department first sheets.

Separate articles cover the various subjects which come under each category. For example, the Finance section of the book, as just issued, includes a treatise on principles of financing as well on control of credits.

A good example of the scope of information provided is found in the article on automatic delivery systems. This article not only gives the basic facts which are necessary to set up and operate a degree-day system, but recognizing that such a system is most effective only when it is carefully modified to meet a dealer's immediate needs, it gives a number of suggestions for the refinement of daily operations.

Each article is well illustrated. Not only is there a generous sprinkling of photographs but there is also a good showing of recommended forms, such as a four page employment application, a credit application and others.

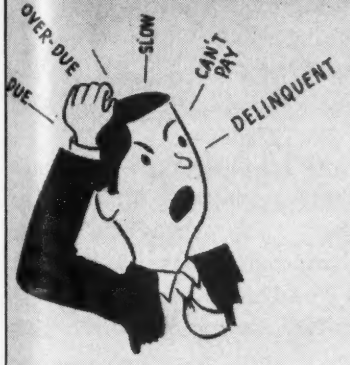
Public Relations Important

The Public Relations section is visible recognition of the fact that people usually succeed financially in proportion to their success in getting along with other people. Accordingly the manual has a forthright treatise on basic customer relations, considerable material on strengthening employee relations and industry relations.

Since the publication of the manual was announced a short time ago, Coastal has been swamped with requests from customers that they be on the first list to receive copies. And, as Wylie Butler points out, the dealers most eager to get it are those who are already known to be particularly progressive in their communities.

The manual was prepared by Kirk B. Shivell, fueloil marketing consultant at 424 Madison Ave., New York.

WAYS TO PREVENT BAD DEBTS



The amount of money you lose each year because of accounts that turn out to be poor credit risks are dollars that otherwise would be added to your *net profit figure.*

By "poor credit risks" is meant not only bad debts written off, but also accounts that require such expensive collection methods and extended loss of working capital that they are unprofitable to handle.

More thorough credit investigation of prospective new accounts is the first step in reducing these losses. Also, a thorough credit check periodically of all your accounts, one by one, will be a healthy precaution, since higher living costs today or tomorrow can readily change the credit picture of many of old "reliable" accounts.

ALWAYS GET CREDIT DATA ON NEW ACCOUNTS

In soliciting new accounts, it is better, from a credit standpoint as well as for your reputation in the community, to take precautionary measures to prevent getting "bad debt" accounts than to be compelled to institute drastic measures to make collections from such accounts. This means making an adequate investigation through all available sources including a personal interview with the prospect by yourself or one of your salesmen.

If the type of business which you do, or local conditions warrant it, a complete credit history should be obtained. A form for this purpose, somewhat similar to that shown on the next page would be advisable. Such questions as sources of income, length of time employed, etc., are omitted because it is believed this information can best be obtained orally and then added to the application.

USE A CREDIT AGENCY ALSO

In addition to obtaining credit information yourself, it is a wise precaution to have an investigation made by a credit agency. Then you should be able to determine if credit can safely be extended.

In some areas an association of dealers is the best solution, if the prospect has formerly been a fuel oil user, since a dealer can obtain accurate information from sources which have first-hand knowledge. The value of such an association, however, will depend upon the honesty and integrity of its members. There must be no double-dealing or throat-cutting tactics on the part of anyone, or the results will be disastrous to all concerned because mutual respect will be destroyed.

The value of agencies that accumulate public records pertaining to their communities should not be overlooked. They can furnish information on suits, judgments, mortgages, etc., as well as pertinent data on local merchant experiences.

SUGGESTIONS FOR SETTING UP A SATISFACTORY AUTOMATIC DELIVERY SYSTEM

The pledge of automatic heat can be fulfilled only if there is provision for an adequate supply of fuel oil at all times in the customers' storage tanks. The "degree-day" system or procedure was developed primarily to keep sufficient oil in customers' tanks. As it has evolved, it has become mutually advantageous to dealer and customer; and it has been responsible, to a considerable extent, for the fuel oil industry's good reputation for providing the best automatic heating.

THE DEGREE-DAY

It has been found that heat is not actually required for comfort in a residence, if the *outdoor* daily mean temperature is 65° F. or above. While most people would not feel comfortable with the *room* temperature at 65°, which is accepted as the base temperature for degree-day systems, it is a known fact that the indoor temperature will ordinarily be a few degrees higher than the outdoor temperature, and consequently the room temperature will be acceptable when the *outdoor* daily mean temperature does not fall below 65°F. The variation is caused by the retention of heat within buildings by their roofs, walls and floors.

Utilizing 65° F. as a base, and considering that such an outdoor temperature will insure comfort indoors, the subtraction of the daily

ATTRACTING AND KEEPING HIGH CALIBRE EMPLOYEES

A Pleasant Environment Promotes Contentment and Profits

Throughout the oil industry and, indeed, industry in general, there is a definite trend toward stiffening the knowledge and skill requirements for the people employed. One of the most essential qualifications of an owner or manager of any business is his ability to attract and keep efficient and capable employees, and to maintain good morale among them.

WHAT AN EMPLOYER MUST OFFER

In any normal labor market an employer will obtain and hold competent employees only as he is willing to meet the available competition in the area. In seeking employment, an intelligent person will consider not only the salary or wages paid but other tangible and intangible benefits, such as opportunity for advancement, stability and permanency of the business, degree of progressiveness of the concern, the environment, the reliability of the employer, the hours of duty, and the general attitude of the employer toward his employees. If an employer is unable to employ satisfactory personnel, or is repeatedly losing the services of capable and dependable people, he should carefully analyze his organization and himself.

Salary

Everyone who works deserves fair pay for the duties performed; and an employee evaluates "fair pay" by comparing his rate of compensation with that currently available in the area

PRINCIPLES AND METHODS OF FINANCING A FUEL OIL BUSINESS

A realistic way to look at money in a business is to regard it as operating equipment, much the same as a truck fleet, a stock of service parts or storage tanks. In order to operate efficiently, you must have sufficient of everything including cash. One of the fundamental problems facing the fuel oil dealer is that of securing sufficient capital. To be successful, he must possess at least a fair knowledge of methods of financing, or he must obtain intelligent and unbiased advice from competent and trustworthy sources.

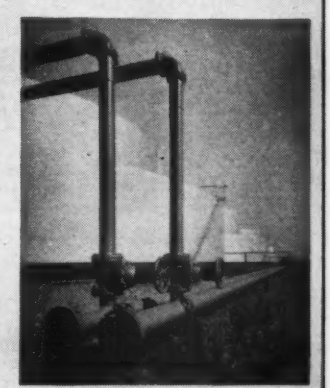
KINDS OF CAPITAL

The problem of financing is clarified by regarding capital requirements as two kinds: *equity* capital and *loan* capital. Equity capital is the money or other assets invested in the business by the owner or owners. Profits retained in the business become equity capital. There is no substitute for ample equity capital; it is a sound basis for the successful business, and supplementary financing on acceptable terms can only be obtained when the business is established on this firm foundation.

It is necessary, of course, for a new business to have a sufficient minimum of working capital from the outset and to increase it from earnings. However, thousands of businesses of all kinds lack sufficient equity capital and therefore have to raise money.

BASIC METHODS OF RAISING MONEY

Where the operator of a small business, such as a fuel oil dealer, lacks sufficient capital himself, the question becomes, what is the best



means of securing additional capital? There are two fundamental things he can do: (1) raise equity capital for the business by permanently sacrificing sole proprietorship and forming a partnership or selling stock, or (2) obtain loans from some individual or financial institution. Both procedures possess advantages and disadvantages, and your circumstances and judgment must decide which is best for you.

A consideration of the advantages and disadvantages of individual proprietorship, partnership, and stock promotion or incorporation is important, before proceeding to finance or refinance your business.

Typical sheets *from Coastal Oil's management manual for fueloil distributors, illustrating the board scope of the subjects explored. Some of the larger oilburner manufacturers have provided management manuals for their dealers, but this is probably the first of its king for fueloil.*

Murder is not Sparky's Sideline

Intrigues of unit Heaters and burner Owners stimulate Sparky and Oops

by
J. W. Schulz

"IT'S TRUE like I always say that people give oilburner service men more trouble than anything, but lately some unit heater jobs have been coming into the picture, too."

Sparky told me this as he put my suitcase into the trunk of his car, at nine in the morning the Tuesday after Thanksgiving. He'd met me at the airport when I arrived in his home town. We'd had the usual leisurely breakfast there during which Sparky had loaded up with four cups of coffee. Now we were on our way to visit one of the unit heater jobs Sparky wanted to show me because, he said, after hours and hours of trouble and effort he had finally made the job perfect. Especially the control layout.

"Had trouble last summer with a unit heater in the house of a customer named Huckleberry, or something like that," Sparky related as he got his car up to 80 and shot down the concrete highway. We had a ride of 20 miles ahead of us to the job he was going to show me.

"Lots of trouble at that Huckleberry place," he continued. "I had to have help from my helper, Oops."

"Oops?" I asked.

"Oops," Sparky answered.

"Why Oops?" I insisted.

"Because he's a doggone good helper, and besides he's the only helper I've got. What's wrong with him?"

"It's not that, Sparky," I pointed out. "I don't even know Oops. I mean why do you call him Oops?"

"Everybody does, for one thing. Started when the boys noticed him saying 'oops' all the time. He's always stumbling, falling off ladders, tripping down flights of stairs, and dropping tools or whatever he's carrying. When those things happen, he says 'oops'. So we call him 'Oops'. Makes sense. It's just like everybody calling me Sparky because the big sparks from ignition transformers always intrigued me and I always wanted to watch them and play around with them."

"Unit heaters intrigue you, too?" I asked him. "Like the one we'll see?"

"Yep, I find unit heaters intriguing. Also, I find people intriguing. Like that Rasberry couple I just was telling you about.

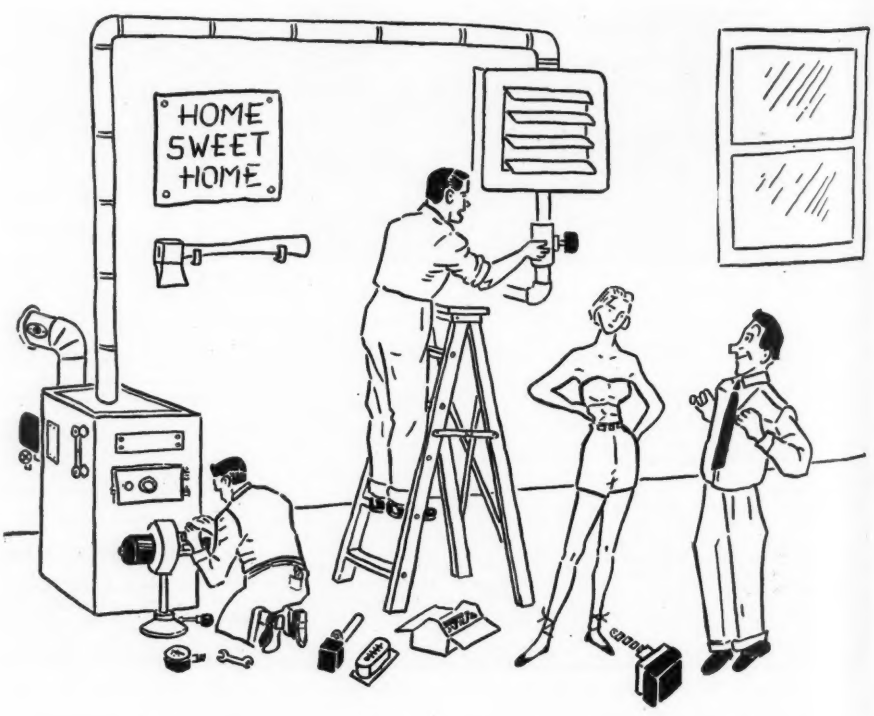
"There were just the two Raspberries, him about 40 and rich enough and always happy as a lark, and her about 30 but looking like she's in her teens. Early last June, Oops and I had to spend a few days in their house because this new steam-type unit heater we'd just installed to heat the rumpus room in the basement, wouldn't work worth a hoot. She was always fixed up like she was going bathing, though she never left the house on days when I was working there. Said she did it to keep cool. Her husband didn't seem to mind. He was always happy as a lark.

"Oops had a hard time keeping his eyes from popping out of his head, what with her modelling bathing suits all over the basement all the time. Finally one day when he'd disconnected and removed the stack control after I'd told him to switch unit heater temperature controls, I told him right out loud to keep his eyes on his work. Mr. Raspberry laughed. Little did the poor guy know that by the end of October he wouldn't be with us."

I was surprised, and commented, "You mean he worked for your company and quit his job?"

"No. He never worked for my company. He didn't have anything to do with fueloil or oilburners. He had plenty of money. I mean that near the end of October he passed on to a better world. In a funny way, too, that had something to do with the oilheating system in the new house he just moved into in October. Heating plants are intriguing and so are people, but the way he died gets both things all mixed up together.

"Now me and Tootles, that's Mrs.



"Oops had a hard time *keeping his eyes from popping out of his head. Finally when he'd disconnected and removed the stack control after I'd told him to switch unit heater controls, I told him right out loud to keep his eyes on his work."*

Sparky Helps a Lady

This is Sparky's seventh appearance since first he lightened up the pages of FUELOIL & OIL HEAT *in the January 1950 issue.*

As in this yarn he is too busy helping out a lady to proclaim this in his usual manner, we point out here that Sparky is in his own opinion "The World's No. 1 Oilburner Service Man."

Sparky says: "There's got to be the best service man in all the world, and can I help it if this happens to be me?"

After the end of this story, no more sentences came from Sparky. His nose was in contact with the basement floor, testing its temperature or searching it for auxiliary air openings. A bit twisted up by the names he had given and determined to get the correct name at last, the author kept asking the right name of the lady. Sparky said, "Tootles, Tootsie, Wootsie, Bluebeard."

Huckleberry, were not exactly that way about each other," Sparky explained primly. "At least not as far as I was concerned. Though on her part, of course, she wasn't lolling around the basement bareback for the benefit of her husband or Oops. If a woman ever snooted her husband, she did. It got her nanny, too, the way he kept on being happy as a lark no matter how nasty she acted towards him. But his death being connected in a way to the heating plant, and Tootles acting towards me the way she did, why I might have been in a tough spot if the experts at the inquest had decided that I could tune up an oilburner to fill a bedroom with carbon monoxide!"

Sparky had arrived at the job he wanted to show me, so we got out of his car and walked towards a small building he said had the unit heater.

"Nope, nobody ever asked me about the strange doings at the Raspberries' place. And nobody ever will," he stated flatly. "That's because everybody knows Sparky around here. Everybody knows that if ever I take on a sideline, it's not gonna be murder."

In the basement of this small store building, which was heated by the one steam-type unit heater that Sparky was so proud of, he sat down and made a sketch of the wiring. This turned out to be similar to Diag. 1. It was the third or fourth wiring layout that Sparky had tried out on this job, and he said it was the only wiring that could possibly do what he had in mind.

Wiring Diagram

The relay in the diagram is something special, Sparky explained to me solemnly. It has two sets of 110-volt contacts, connected separately to different terminals, both of which close when the low-voltage pilot circuit or thermostat circuit closes. The terminals of the pilot circuit are marked "T." The roughly drawn coil in the relay just represents the solenoid coil that snaps in both sets of contacts simultaneously. The low-voltage transformer that's part of the relay is not shown.

When the room thermostat circuit closes, according to the explanation Sparky gave me, the contacts in the left side of the relay pass juice on to the 110-volt input terminal of the oilburner panel, therefore the burner starts. There's a jumper across the low-voltage thermostat circuit of the burner panel. At the same time, the right-hand contacts in the special relay pass juice on towards the motor of the steam unit heater. But, of course, the motor cannot start until heat reaches the unit heater temperature control shown in the drawing. Connected in the live leg to the motor, this is an immersion control of the reverse-acting type, screwed into a pipe tee in the return line just under the unit heater.

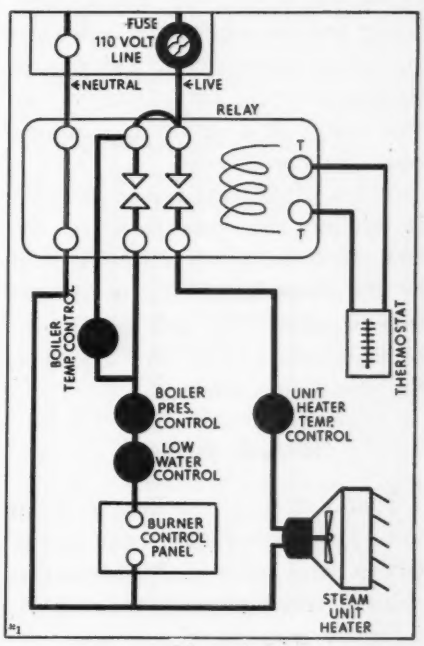
So, the thermostat starts the burner when heat is needed. As soon as steam gets to the unit heater and affects its temperature control, the unit heater motor starts.

When the thermostat circuit opens because the store has been warmed sufficiently by the unit heater, the oilburner and the unit heater motor are turned off simultaneously.

The boiler temperature control shown in the drawing is connected in parallel with the relay contacts that start and stop the oilburner, because the steam boiler is fitted with a tankless water heating coil. Set at 170°, this boiler temperature control starts and stops only the oilburner.

"Well thought out and indeed very special!" I answered Sparky when he asked me how I liked this circuit, which he said he had invented himself.

"During winter weather, the boiler will still be steaming when you stop the unit heater motor through the action of the room thermostat. The hot firebox will keep it steaming or simmering for quite a few minutes. Therefore, the steam piping to the unit heater is likely to remain hot every minute of the time in winter, and the boiler water will be simmering



Diag. 1

or steaming mildly all the time, and each time the room thermostat circuit closes the unit heater will get steam and will start up in a matter of seconds.

"There won't be a wait for heat of several minutes, each time the thermostat circuit closes. Snap the thermostat circuit closed by raising the thermostat setting, and you'll have steam at the unit heater in a matter of seconds.

Another thing: When the thermostat circuit opens, the unit heater motor stops instantly. That will avoid a big over-ride. The room temperature won't continue to go up after the thermostat snaps 'off'."

Sparky beamed as I thus outlined what I found excellent in his circuit, and he said that there was no other way to control a job like this.

Without starting an argument with him about that point, I drew up a circuit like the one labelled Diag. 2 here, and asked him to consider it.

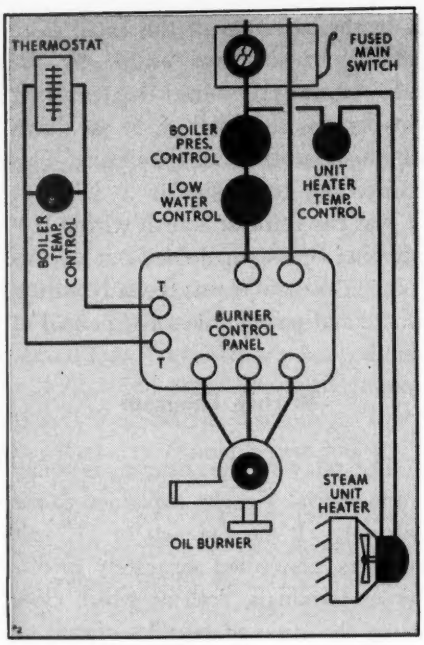
Either the thermostat or the boiler temperature control can start the burner, for these two controls are in parallel with each other and are connected to the low-voltage thermostat circuit of the oilburner panel. Kept at 170° by its temperature control when no heat is needed, the boiler, of course, will not generate steam. Fired long enough to generate steam, because the room thermostat circuit stays closed, the boiler will send steam to the unit heater, and then the unit heater temperature control will turn on the unit heater motor. This control is affected by the temperature of the unit heater or a return line coming from the unit heater.

When, after heat has been provided in this way the room thermostat circuit opens, the burner will be stopped by the thermostat. The boiler will stop steaming. The unit heater temperature control will chill and stop the unit heater motor.

Keep it exclusive

Sparky showed great interest in this until I mentioned that many burner dealers were using it. I learned that this was poor diplomacy, for on being informed that the circuit was used widely, Sparky took an instant and contemptuous dislike to it.

Turning back to Diag. 1, I asked him if he would consider putting a jumper across the right-hand set of contacts to gain a particular advantage. This jumper would not affect the starting of the unit heater motor, because the way things were arranged originally by Sparky the unit heater motor was always started by the unit heater temperature control. The jumper would affect the turning-off of the unit heater motor, however. After the room thermostat circuit of Diag. 1 opened and the burner therefore stopped, with the jumper in place across the right-hand contacts the unit heater motor would continue running



Diag. 2

until all the steam was used up and the unit heater temperature control therefore started to chill.

Delighted with the idea of the jumper, Sparky exclaimed he'd use it, and gave the reason why: "It will make the unit heater use up all the steam the boiler has generated, before the unit heater motor stops. The unit heater will run an additional two or three minutes for each 'on' cycle of the thermostat. That might give us some heat for-free where it counts, and might save a bit of fueloil."

In answer to my question about possibly getting a temperature over-ride as a result of keeping the unit heater running a few minutes after the room thermostat circuit opened, Sparky said that this over-ride tendency would be negligible. A few minutes of running the unit heater after the oilburner stopped generating steam did not count, to his mind. Besides, said he, he could easily adjust the room thermostat for greater sensitivity to eliminate any temperature over-ride tendency. It was a heater type thermostat. The way it was set now it was giving "on" periods of about ten minutes, and by using the heater to fullest effect or perhaps tricking up the thermostat a bit Sparky could cause it to give "on" periods as short as two minutes, which certainly would be too short.

He'd use Diag. 1 with the jumper across the right-hand contacts in the special relay, he wound up, but he certainly had no use for Diag. 2 which lots of dealers now are using.

We answered three routine service calls which had been piling up for Sparky. Asked by one owner what caused the trouble, he explained that the spark might have been weak or something. Actually the nozzle had been plugged and I had watched Sparky clean it. He accounted to me for all this after we'd left the job.

"That owner might want to blame the oil for the plugged nozzle. Dog-gone nozzle has plugged five times this season, and I've got to put a good filter in the oilburner suction line sometime. But if I tell that customer that the nozzle is always plugging, he might blame the oil. The oil can't be to blame. I work for the oil company."

Sparky had arranged things so that we went on the last of the three service calls about five o'clock, and so that on this call we would see a woman who knew him well because he had serviced her oilburners, he said, for about 30 years. She would do anything for him, he assured me. I was not surprised, then, that after we entered the basement and settled down to work on the burner, the woman followed us down with a tray that held two glasses, a quart of Scotch, a dish of ice cubes, and two quarts of carbonated water.

Nothing is too good

"So, you're gonna give me everything!" Sparky sang out to the customer. Then to both me and the woman he added seriously, "Both of you know that if it were not my last service call of the day, as it happens to be, I wouldn't touch a drop of it!"

"Listen, Big Boy," the woman told him coyly. "Here you get a little drink anytime. Besides, didn't you cut the oil bills of that old apartment house my husband bought last year? You save him about $500 a year, don't you? You didn't get a red cent of a tip from him for all your extra efforts, so you can figure that this trayful of stuff comes from him. Actually it does, anyhow."

After this, the woman left us, Sparky fixed the burner and had four

stiff drinks at the same time. Then he drew up a chair and started to talk.

"Tootles Blackberry was high on a pedestal with me, for I could see she had everything that comes best in women, but she led a very tragic life," he announced.

"The night, the end of last October, when her husband died, everything was very confusing. The last thing Tootles told me before leaving for South America or someplace was that she did not know fully what went on the night of the tragedy. She thanked me for what little help I was to her. All I did was help her keep clean her husband's reputation. And if she didn't know all about what went on that night, I certainly didn't either."

He stopped to pour a stiff one, then went on with his story.

"That night, I went out on a service call to the community hall where there was a breakdown while they were serving a church supper. After fixing the burner I wandered into the supper with hopes of maybe getting into a nippy punch-bowl, and I bumps right into Tootsie Blackberry. After I asks her how her husband is, she starts raving about how depressed he has always been and how right now he wouldn't even come out to the church supper but went straight to bed, taking a few sleeping pills.

Merry Sunshine

"I try to cheer up Tootles by telling her how I've always found her husband happy as a lark and carefree as anybody I've ever heard about. That only upsets her more, and makes her tell everybody around that really she's got the saddest husband in the whole world.

"I leave things at that and go away. But about two hours later, thinking how Tootsie carried on about her husband, I drives out in the country to this new house they just bought.

"I've got to tell you that this house has the fanciest furnace-type air-conditioning system you ever saw. This system even has a fresh-air intake duct and a register located on the outside of the house, to give the furnace return ducts 20% outside air and 80% re-circulated air, or something. Now, I had warned Tootles Blackberry about that fresh-air intake. The gardner had left the gasoline lawnmower running right near it one day while he went off to the garage for something, and I had told Tootles that all the fumes from the exhaust of the lawnmower were being drawn into the house because the circulating blower of the furnace system was running. The summer fan-switch was on. She had the lawnmower moved right away. But that fresh-air intake figures in what happened the night Blueberry died.

"Arriving at the little estate, I find that the outside gate of the high steel fence is locked up and I can't drive in. Because that's odd, it never happened before, I get more and more worried about Mr. Blueberry, so I climb the fence and take the long walk to the house.

Just between Us

"Here's what I find, and besides Tootles Blackberry you are the only living soul I ever told it to. I get no answer when I ring the front door bell. Sure Tootles is correct, I figures, when she says her husband's been taking too many sleeping pills. Anyhow, I start walking around to the back door, to try ringing there. And then I see it, Mr. Blackberry's automobile pulled up on the back lawn, engine running fast because there's some books piled up on the accelerator pedel. And get this: A vacuum cleaner hose is hooked on the exhaust pipe of the automobile, and the other end of it runs right into the fresh-air intake duct that gives the furnace outside air. Am I scared! I turns off the car's engine. Wondering, I put my ear close to the fresh-air intake to listen. Sure enough, the circulating blower is running. I can hear it. That doesn't figure for such a mild night, until I reason out that the summer fan-switch must be turned on.

"I run out of the place, jumping the fence again, drive my car to a drug-store about four miles away, and go into a phone booth to call Tootles at the church supper. Told her I was worried about her husband, and was driving by. First, she wanted to know why in the world I would do that. Next, how did I get through the locked gate at the end of their driveway. Then I told her what I'd found.

"After I'd told her nobody knew a thing about it but me, she said it was far too late to help her husband, so the best thing I could do was keep everything quiet to save his good name. She asked me if I'd left everything as I found it, and screamed over the phone when I said I had turned off the car engine and taken away the vacuum cleaner hose. So I said if she wanted everything kept quiet so as not to defame the name of her husband, I'd better go right back, put the car in the garage where it belonged, hide the vacuum cleaner hose, and put the screen back on the fresh-air intake of the heating plant.

"That certainly relieved her, for she said it really was better than anything she'd been able to think up. So I said I'd do it. And she said she'd go home with friends in a little while and handle things from there on.

Up for Air

"I did things up a little better, even, when I got back to the house. Finding I could force a basement window easily, I went into the house, into the basement only that is, and shut off the circulating blower. Sure enough, the summer fan-switch was on.

"When the people who took Tootles home went into the house with her, everybody noticed the fumes. So carbon monoxide poisoning came out as the cause of death, at the inquest, and there was a good deal of speculation as to how this thing could have happened. People around here first thought the oil-furnace could cause such a death. Experts examined the equipment and said that even without looking at it, they could swear an oil-furnace couldn't do the damage in this case."

Sparky was pouring one more of the drinks which punctuated his narration. Then he went on again.

"I've always wondered why Blueberry did it. With his manner always happy as a lark, and all his money."

"The wife get all the money?" I asked.

"Yes, and on top of it double indemnity on a $50,000 life insurance

(*Please turn to page* 126)

O.H.I. Group Insurance Plan Costs Dealers very little

by
Hollis Albert*

WHY SHOULD a small or medium sized fueloil or oilburner dealer buy OHI group insurance? There are many reasons why it's a practical thing to do.

My company is typical of thousands of concerns in the industry. Our thinking runs about like this:

1. Dealers need personal protection while keeping as much cash as possible in their businesses. Co-operative effort brings the advantage of the cheapest life insurance money can buy.
2. Group insurance helps to attract men. It makes the dealer equal to the large competitors for this universally accepted labor benefit.
3. The cost is deductible taxwise.
4. Most outfits have at least one employee who badly needs but can't buy a policy because he can't pass the physical tests. This man you can really help.
5. Little businesses can help to stop the "do-gooders" of socialism through this cooperative help to their people.

Employees have to be with the company six months before eligible for insurance . . . this eliminates seasonal help.

To get down to specific figures, my company lines up this way on costs:

3 officers $5,000 each @	$5.50	$15.50
1 Dept. head $2,500. . .	2.75	2.75
14 Drivers, clerks, mechanics $1,000. .	1.10	15.40
Total monthly premium		$33.65
Total insurance coverage		$31,500

Our banker was very happy when he heard we were participating in this plan on top of a plan we already belonged to. He told me straight that one of the most baffling problems the dealer had was that with present taxes and without proper insurance no one could afford to die . . . there usually isn't enough money to pay inheritance taxes without losing the business.

Your employees are a most important factor in your success. A good man is an asset that has to be built up the same as good credit. Here is a tool that helps you attract the kind of help you need and want. Give your people the security they deserve and they will do a better job for you.

The OHI directors, men of wide experience, have endorsed this plan. I am glad to be one of the Trustees. We have made it possible for every dealer large or small to come under this plan without examination, but it must be done quickly as the application deadline is December 15.

You must be an OHI member. If there is not a local chapter in your town you can join the national group for $15 a year and get a number of other benefits in addition to the insurance. If you are running close to the December 15 deadline it would pay you to phone or wire Fred Burroughs at the New York office.

*National chairman, Distribution Div., Oil Heat Institute, 6 East 39th St., New York 16, N. Y.

API Host to 5,000 Oilmen at 31st annual Meeting

MORE THAN 5,000 OIL MEN from all over the country gathered in Chicago, November 5 to 8 for the 31st Annual Meeting of the American Petroleum Institute. Of the more than 100 meetings and sessions held during the 4-day gathering the group session of the Division of Marketing on November 5 held the most interest for the oilheating industry. Three speakers were featured.

The first, John Harper, Harper Oil Co., Long Island City, N. Y. and chairman of the National Oil Jobbers Council, spoke on "The importance of independent marketers to the oil industry," opening with definitions of the elements that make up the independent marketing segment. He followed with discussions of five basic ways in which the independent justifies his existence: marketing innovations, local appeal, healthy competition, labor relations and Government regulation.

In the way of marketing innovations, Harper cited the pioneer work in oilburning done by independents, such as the design of special fueloil terminals. This and many other items of procedure, tabulation and layout, continued Harper, have been the independent's most useful contributions.

The independent is a vital factor in his home town in the public-relations program of the industry, it was pointed out, and while this is recognized by suppliers, "there is obviously a conflict of interest and a jealousy between the two methods of distribution—direct and through independents." This could be ironed out, Harper contended, if one influential executive were designated in each integrated company to "devote his full time, energy, judgment and enthusiasm" to a study of the independent marketers' problems.

Healthy competition cannot exist without the independent marketer, said Harper. He reviewed the problems being encountered by such outlets on both gasoline and fueloil sales and concluded that "integrated oil company management must give thought to reserving a certain percentage of its production for sale to unbranded jobbers for the sole purpose of preserving free enterprise and healthy competition."

The fourth way in which independent marketers can justify their existence is in the preservation of good labor relations, because the distributor or jobber can offer a point of contact with his employees that the integrated oil companies cannot match and makes it much easier to maintain a more ideal relationship between employer and employee.

Harper next reviewed the plague of Government prosecutions and investigations inflicted on the oil industry,

and reviewed some of the complaints that independents feel are justifiable. He pointed out that the independents do not want to take over the entire marketing end of the industry, but that "they do insist quite justly that, as non-integrated units, their supplier should feel responsibility in their economic existence under intelligent and efficient management."

Better intraindustry Relations

And, finally, he said, rather than forcing or making it attractive for independents to appeal to Government agencies for relief, "there are ways in which it would be possible to avoid some of these problems. But, when you get right down to it, the thing we need most is better intraindustry relations so that each segment will maintain a wholesome regard for the other and adopt an overall controlling policy of settling all differences within the industry in a spirit of mutual respect."

Concluding, Harper repeated the assertion that independent marketers are important to the oil industry and to promote their functions he suggested to the integrated oil companies:

"1. An increase in the trend to distributor sales.

"2. Maintenance of an adequate supply of unbranded gasoline and fuel-oil for the normal requirements of jobbers.

"3. Institution of a sufficient profit ratio to renew the incentive of distributors.

"4. Establishment of a higher plane of business ethics in the marketing division of the oil industry, with mutual respect and consideration, and the desire to recognize and settle all differences in a legal fashion within the industry."

The following speaker, R. W. McDowell, president, Mid-Continent Petroleum Corp., Tulsa, Okla., discussed the "Oil industry's contribution to defense." Tracing the importance of the petroleum industry to the nation in peace and war, he briefly outlined the role it played in World War I, its growth thereafter, the tremendous job it was called upon to perform during World War II and its unprecedented expansion since then. He expressed pride that "through two world wars and the intervening periods of peace, the petroleum industry has demonstrated it is fully aware of its great public responsibility. It is now generally recognized, I believe, that ours is the most essential industry for our domestic economy as well as our national security."

The present emergency and the serious possibilities of an all-out war, he continued, "places a responsibility upon the oil industry that cannot be taken lightly." But on this score, he expressed the confidence "that we can accomplish anything required of us provided we are given the tools with which to work and are allowed freedom of action, and last, but by no means least, provided we are not taxed out of business."

He reiterated the statement that any form of Government regulation will fail to solve the industry's problems but that harder work, more intelligent selling and applying the golden rule in daily contacts will bring the feeling "that we have all had a part in making further contributions not only to the defense of our country, but to the daily welfare, convenience and comfort of the American public."

Burrill on Outlook for Oil

"Oil industry outlook in the defense economy" was the topic discussed by C. L. Burrill, director, Program Div., Petroleum Administration for Defense, in which he indicated there is sufficient supply of stocks to meet domestic and normal export requirements this year and saw no reason for rationing of petroleum products during 1952.

He opened his talk with a review of the effects of the shutdown of the Abadan refinery in Iran and related how the deficit it occasioned was overcome. The outlook for this heating season was summed up with the observation that we enter the winter months "with stocks of products and crude oil that are more than adequate to meet the domestic and normal export requirements under the expected levels of operations. Although substantial quantities of additional crude oil could be produced without exceeding maximum efficient rates, particularly in West Texas, no pipelines are available to move the additional quantities and, because of shortages of pipe, new lines will not be available until the third quarter of 1952. Current refinery runs are almost 200,000 barrels less than could be sustained for a period as long as three months."

Burrill also declared there is a need to build more tankers than are now planned, since tanker transportation is, and will continue to be, tight.

The level of civilian requirements is the most uncertain element in estimating future needs, he said, since military needs will increase during the next six months, but not substantially, assuming unchanged international conditions.

Predicts Demands for Oil

"After considering the general level of business activity, the probable numbers of oil consuming units in place, the effect of the Iranian crisis and probable military requirements," Burrill stated, "It is believed that the total demands for crude oil and products during the winter months will amount to 8,088,000 B/D, which is 7.4% more than the amount consumed during the previous winter season. It is estimated that distillate fueloil demand during this period will amount to 1,714,000 B/D, which is 12.4% more than during last winter. These estimates, of course, are based upon the assumption that temperatures will be normal.

"For the year 1952 it is believed that the total demand for crude oil and products in the U. S. will average 7,775,000 B/D, which is approximately 4.4% more than is expected during the year 1951, when total demand will probably average 7,445,000 B/D. Increases in the major products during the year 1952 over the current year are expected to be 6.5% for gasoline, 4.8% for kerosene and 7.2% for distillates, with a 1.3% decrease expected for residual fueloil."

As far as supply is concerned, Burrill continued, "it is expected that the industry will be operating throughout the year 1952 at levels which can be met without difficulty. Although it is possible that local shortages might occur during the winter months, when transportation facilities are strained by the effects of bad weather, no rationing of petroleum products is foreseen during the year 1952."

NPC issues Report on Petroleum Use Trends

ON OCTOBER 31 a report was issued by the Committee on Trends in Petroleum Consuming Equipment, appointed by Chairman Walter S. Hallanan of the National Petroleum Council, Washington, D. C. at the request of H. A. Stewart, acting director, Oil and Gas Division, Department of the Interior. The following committee members participated in the report: Chairman Albert J. McIntosh, Socony-Vacuum Oil Co., Inc.; Samuel Dunckel, Institute of Cooking and Heating Appliance Manufacturers; Robert Gray, FUELOIL & OIL HEAT; Harry B. Hilts, Atlantic Coast Oil Conference; Joseph E. Pogue, Chase National Bank and Fred Van Covern, American Petroleum Institute.

The report, covering the trends of the manufacture, sale, installation and use of petroleum consuming equipment, included a graphic representation of the comparative rates of changes in the use of passenger cars, trucks, domestic oilburners, tractors, small craft, commercial-industrial oilburners, buses, civil aircraft, diesel locomotive units, large craft and steam locomotives using fueloil. Summarizing the report, the committee states, "It is interesting to note from the graph and tables presented that the numbers of petroleum consuming equipment in use in the United States have steadily increased over the last 20 years."

Domestic oilburners in use at the start of 1951, the report shows, were 127% greater than those operating at the end of World War II, and present indications foretell a rise of approximately 11% this year. Growth rates by years have been somewhat sporadic due to influences outside the control of the oilheating industry, notably the huge backlog of demand for burners after the War and unfavorable publicity on fueloil supply. Greatest postwar growth in oilheating popularity has been registered in the South Atlantic and Midwest states.

The first of the accompanying tables contains statistics on the yearly installations of domestic oilburners installed since 1930, broken down by replacements of old oilburners, new home installations, conversions and oilburners replaced by other fuels, to arrive at a net number of new users for each year. The second table illustrates postwar growth in the number of domestic oilburners installed by states.

TABLE I. NATIONAL PETROLEUM COUNCIL REPORT ON TRENDS

Domestic Oilburners Installed and Number in Use (1)—Total U. S.

	INSTALLATIONS							
			New Users					
Year	Total	Replacing Old Oil Burners	New Homes	Previously Using Other Fuels	Total (2)	Oil Burners Replaced by Other Fuels	Net New Users	Number In Use (End of Yr.)
1930	126,400	N.A.	N.A.	N.A.	N.A.			648,500
1931	104,000	5,200	"	"	98,800	(2)	98,800	747,300
1932	89,200	5,380	"	"	83,820	"	83,820	831,120
1933	88,600	5,440	15,100	68,060	83,160	"	83,160	914,280
1934	108,290	9,700	8,660	89,930	98,590	"	98,590	1,012,870
1935	150,510	11,255	15,200	124,055	139,255	"	139,255	1,152,125
1936	220,075	31,525	28,400	160,150	188,550	"	188,550	1,340,675
1937	210,740	20,870	40,500	149,370	189,870	"	189,870	1,530,545
1938	179,360	42,160	33,400	103,800	137,200	"	137,200	1,667,745
1939	236,140	41,555	43,400	151,185	194,585	"	194,585	1,862,330
1940	302,210	29,415	59,000	213,795	272,795	"	272,795	2,135,125
1941	333,250	56,400	81,000	195,850	276,850	9,915	266,935	2,402,060
1942	99,514	33,200	42,500	23,814	66,314	(2)	(3)	(3)
1943	33,445	13,900	17,400	2,145	19,545	"	"	"
1944	49,915	38,300	450	11,165	11,515	"	"	"
1945	145,596	44,100	6,400	95,096	101,496	"	"	"
1946	492,593	39,400	58,100	395,093	453,193	"	418,984	2,821,044
1947	888,083	58,613	283,210	546,260	829,470	"	829,470	3,650,514
1948	455,245	89,042	193,462	172,741	366,203	40,944	325,259	3,975,773
1949	614,712	61,700	187,846	365,166	553,012	38,250	514,762	4,490,535
1950	846,815	96,960	315,834	434,021	749,855	68,256	681,599	5,172,134

(1) Source: "FUELOIL AND OIL HEAT," New York, N. Y.

(2) The "Oil Burners Replaced by Other Fuels" are not known for the years indicated; consequently "Total New Users" are too low by these unknown quantities for those years. It is believed that this difference is negligible in the pre-war years.

(3) During the four war years the actual number in use was hard to determine due to the conversions from oil to coal and subsequent reconversions to oil. At midsummer of 1945 the number in use was approximately 2,280,225 as shown in the table by states.

Note: The term "Domestic Oilburner" includes not only burners installed in residences but also those in small commercial or apartment applications where the same type of burner and oil are used and where firing capacities are under 6 gallons per hour.

Burners with firing rates above 6 gallons per hour are included in the commercial-industrial classification, regardless of whether they burn distillate or residual fuels.

TABLE II. N. P. C. REPORT ON TRENDS

Number of Domestic Central Heating Oilburners Operating

SHOWING POSTWAR GROWTH

	*July 1, 1945**	*January 1, 1951***	*% Rise*
Maine	26,930	63,495	136
New Hampshire	22,945	61,199	167
Vermont	9,505	17,365	83
Massachusetts	261,102	485,747	86
Rhode Island	37,820	65,226	72
Connecticut	101,988	220,000	116
TOTAL NEW ENGLAND	460,290	913,032	98
New York	419,242	940,302	124
New Jersey	216,683	472,022	118
Pennsylvania	174,282	437,500	151
Delaware	14,858	33,648	126
Maryland	114,943	213,516	86
Dist. of Columbia	37,772	60,290	60
TOTAL MID-ATLANTIC	977,780	2,157,278	121
Virginia	50,273	121,102	141
West Virginia	363	1,667	359
North Carolina	14,489	58,096	301
South Carolina	4,826	17,682	266
Georgia	3,837	11,173	191
Florida	13,572	41,073	203
TOTAL SOUTH ATLANTIC	87,360	250,793	187
Michigan	74,744	234,415	214
Ohio	24,158	94,027	289
Indiana	21,660	85,513	295
Illinois	99,980	236,375	136
Wisconsin	56,661	167,540	196
Minnesota	85,223	183,460	115
Iowa	31,485	82,214	161
Missouri	28,416	74,779	163
Kansas	4,488	8,426	88
Nebraska	22,638	42,786	89
South Dakota	7,928	23,592	198
North Dakota	7,204	24,072	234
TOTAL MIDWEST	464,585	1,257,199	171
Kentucky	2,166	7,606	251
Tennessee	3,528	12,172	245
Alabama	2,822	7,647	171
Mississippi	940	1,382	47
Arkansas	1,646	2,323	41
Louisiana	6,469	9,452	46
Oklahoma	1,176	1,688	44
Texas	12,936	28,201	118
TOTAL SOUTH CENTRAL	31,683	70,471	122
Montana	2,429	6,408	164
Idaho	3,614	12,555	247
Wyoming	1,248	2,831	127
Colorado	6,503	10,079	55
Utah	2,096	9,224	340
Nevada	4,958	9,744	97
New Mexico	1,839	2,600	41
Arizona	5,095	13,250	160
TOTAL MOUNTAIN STATES	27,782	66,691	141
Washington	79,859	166,855	109
Oregon	36,028	106,774	196
California	114,858	183,041	59
TOTAL PACIFIC	230,745	456,670	98
TOTAL UNITED STATES	2,280,225	5,172,134	127%

*Based on count of rations, slightly adjusted.

**Of these about 48% on East Coast, 27% for Mid-West and approximately 38% for total U. S. oil burners have water heaters attached which require additional oil.

In addition some 134,000 separate water heater units burning No. 2 fuel oil were in operation on January 1, 1951 located mostly in mid-west and far-west states.

Source: "FUELOIL AND OIL HEAT," New York, N. Y.

Northwest Petroleum Group examines Margins, Costs

THE FIRM of V. J. Pedrizetti & Co., certified public accountants in Duluth, Minn., reported recently the results of a survey they conducted on fueloil margins and costs, which had been requested by the Fuel Oil Margins Committee of the Northwest Petroleum Association, Minneapolis. Financial records of ten jobbers, located in St. Paul, Duluth, Rochester, Stillwater, Worthington, Montevideo, Bemidji, Grand Rapids, Minnesota and Fargo, North Dakota, were studied. Size of the dealers ranged from those handling 20,000 gallons of fueloil a month to as high as a million gallons a month.

The survey covered a six-month period, from January 1 to June 30, 1951, with all items of expense adjusted to reflect only those costs applicable to fueloil distribution. A summary of the results shows:

	Average per Gallon
Average Selling Price	*14.383¢*
Average Costs	*12.026*
Average Margin	*2.357¢*
Expenses	
Truck Delivery Expense	*1.027¢*
Bulk Plant Expense	*.305*
Sales Expense	*.191*
Administrative Expense	*.766*
Total Expense	*2.289¢*
Average Profit	*.068¢*

The averages used in the computations were based upon mean averages of all ten dealers that participated in the survey, with the average selling price representing the average sales price of No. 1, 2 and 3 fueloils as reported by the dealers. The average costs were developed in the same manner, including each company's cost FOB his location, plus inspection fee each pays to the state of Minnesota or North Dakota. Individual margins, operating costs and net profit varied considerably, the study revealed, margins ranging from 2.033¢ to 2.645¢; costs showing a high of 2.805¢, a low of 1.595¢ and net profits spread between 0.783¢ and 0.085¢. Four of the companies showed losses of 0.050¢, 0.161¢, 0.330¢ and 0.682¢.

Imperial out of retail Sales; Canadian Supplies adequate

A REVISED SYSTEM of distributing fueloil to domestic customers is being put into effect by Imperial Oil Co., Ltd., Toronto, Canada. At the same time other major and independent distributors have revealed the outlook for fueloil supply during the current heating season and report it adequate, even though some of them are not adding any new accounts.

The change in Imperial's distribution takes the company out of retailing, and puts the customer in direct contact with independent distributors appointed to handle Imperial's fueloil deliveries. A company spokesman said the move is expected to improve service to domestic consumers and also will benefit former employees of the company who will be enabled to establish their own independent businesses as distributors of furnace fuels. Imperial Oil will stand behind both distributors and customers, to see that present contracts for oil are carried out. In cases of emergency, the company's own facilities will be available to maintain service.

Billing for fueloil which has become a considerable problem for Imperial as its domestic accounts have grown, in the future will be handled by the independent distributors, who also will operate the temperature card system, which has been developed by the company to regulate deliveries in accordance with changes in the weather.

Imperial Oil is the second major oil company in Canada to place distribution of fueloil in the hands of independents. McColl-Frontenac Oil Co., Ltd., some years ago turned over its domestic fueloil accounts to a large distributing organization. Other major companies state at present they are not considering any break in the direct connection with domestic fueloil users.

The change in Imperial's system follows trials operated in Ontario last winter, and experience gained in other provinces. The independent distributors being appointed are, or have been, employees of the company who are familiar with the system in use up to the present. In a similar fashion, Imperial recently disposed of its Essotane liquefied petroleum gas service by turning it over to an independent distributor.

Fueloil stocks in the coming winter will be adequate for customers now having contracts, according to Imperial Oil and other major oil companies. Storage tanks, both bulk and domestic, continue to be the tight spot in the fueloil business, limiting to some extent the amount of new business that otherwise might be handled.

British American Oil Co. is not accepting new contracts at the moment but is "certainly not going out of the retail business," an official of the company said. He said the company was committed to about the extent of its present ability to store and supply fueloil in the Ontario district, and did not wish to jeopardize this service by "overselling" and perhaps, getting caught by an abnormally cold winter.

The Sun Oil Co. is in a similar position, an official said. While not taking on any new domestic delivery contracts, it was assured of adequate supplies for contracts already in force.

The Shell Oil Co. is not actively soliciting new domestic heating contracts, but is accepting new customers who apply for fueloil service in Ontario. In Quebec, which is a big refining center, and where storage facilities are greater, Shell is seeking new customers.

Imperial Oil is still accepting new accounts in Ontario, on a limited scale, but is adding none in Quebec, a company spokesman said. Adequate supplies are assured for present customers, and new contracts are being added only to the extent of established capacity.

Bob Dibble, of R. G. Dibble Co., said that his organization brings in fueloil in tanker quantities, and has its own storage facilities and is able to look after all existing contracts and accept new customers.

Similarly Elias Rogers, Ltd., reports winter's supply of fueloil already in storage and is accepting new accounts.

Fueloil Sales, Limited, which also has its own storage facilities and distribution system, anticipates no difficulty in supplying all present contracts, and is accepting new customers.

❖

U. S. Department of Labor Fueloil Prices (September)

FIELD INVESTIGATORS for the Department of Labor monthly check prices of principal fuels in several cities in each section of the country. Getting retail quotations from various suppliers in each market, the prices are averaged and published. Those in the table that follow were taken September 15 (cents per gallon):

	Range	*No. 1*	*No. 2*	*No. 3*
Boston	14.90	14.57	12.50	..
Manchester	15.30	14.80	13.20	..
Portland, Me	14.40	14.40	12.40	..
[3] Buffalo	14.95	..	13.74	13.74
[4] New York	..	..	12.75	..
Philadelphia	..	13.43	12.20	..
[1] Chicago	14.83	14.48	13.57	13.57
[4] Detroit	..	14.73	13.70	..
Milwaukee	..	14.78	13.84	13.72
[1] Baltimore	..	13.36	12.44	..
[1] Wash., D. C.	..	13.84	12.85	..
Jacksonville	..	14.80	13.25	..
Norfolk	..	13.60	12.20	12.20
Richmond	..	14.00	12.60	..
[2] Savannah	..	16.55	13.97	..
[5] New Orleans	..	14.33	12.77	12.77
Portland, Ore.	..	14.50	12.10	6.90
[6] San Francisco	..	13.87	11.54	6.85
[4] Seattle	..	15.33	13.20	7.11

[1] Prices include 2 percent tax.
[2] Prices include 3 per cent tax on all fuels, plus an inspection tax of one cent per gallon on kerosene only.
[3] Prices include 1 percent tax.
[4] Prices include 3 percent tax.
[5] Prices include 3 percent tax on all fuels except gas; prices for kerosene and fueloil No. 1 also include one cent per gallon State health tax, and 1/32 of one cent per gallon State inspection tax.
[6] Prices include 3.5 percent tax on all fuels except gas.

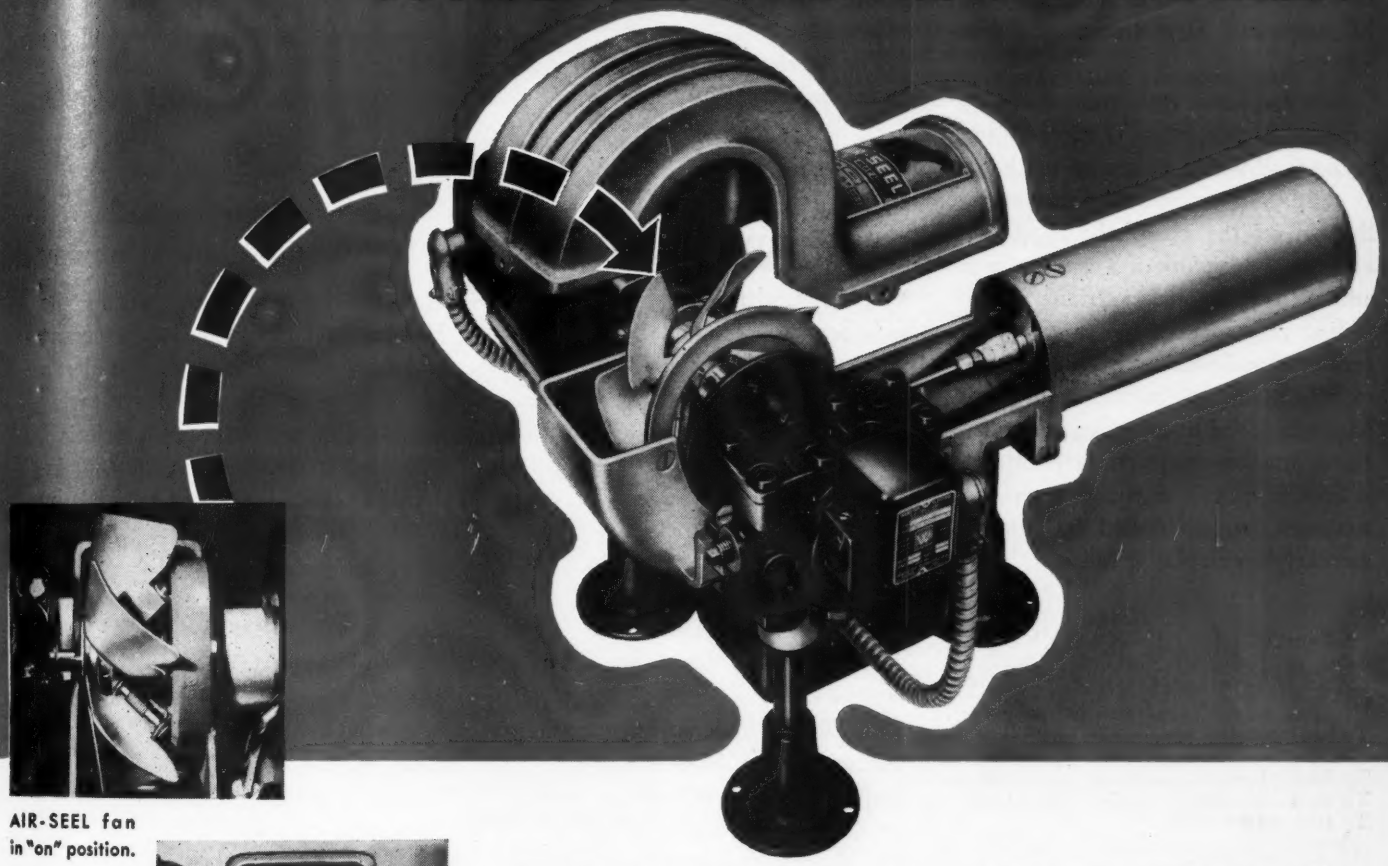
❖

OPS sets up specific fueloil Prices in Boston

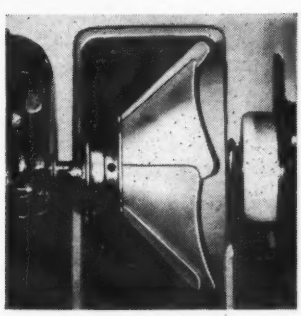
SUPPLEMENTARY REGULATION 4 to Ceiling Price Regulation 17 has been issued by the Office of Price Stabilization, Washington, D. C., establishing specific prices for "range oil, No. 1 fueloil, kerosene and Nos. 2, 3 and 4 distillate fueloil at (1) refineries and tanker terminals, (2) terminals other than tanker or barge terminals, (3) jobbers' barge terminals, (4) jobbers' bulk plants and (5) delivered in

ONLY AirSeel

CONSERVES THE HEAT IT MAKES!



AIR-SEEL fan in "on" position.



AIR-SEEL fan in "off" position.

By "closing the door" on heat-wasting cold air during "off" period, Silent Glow's AIR-SEEL saves heat . . . fuel . . . and fuel dollars. The patented AIR-SEEL fan is scientifically designed with blades that automatically fold flat against each other when burner stops. This exclusive feature "seals" the heat within the heating plant . . . and, unlike ordinary burners, prevents the passage of cold basement air through the intake into the system.

Important, too, the AIR-SEEL fan is equipped with micrometer flame control for adjustment of both velocity and amount of air to fit varying fire-box conditions. Another fuel-economy feature!

That all adds up to a "dollar-saving" story that's easy to tell, easy to sell . . . and is a business-building opportunity you can't afford to miss.

Sell AIR-SEEL and you're sure of more profitable oil burner sales!

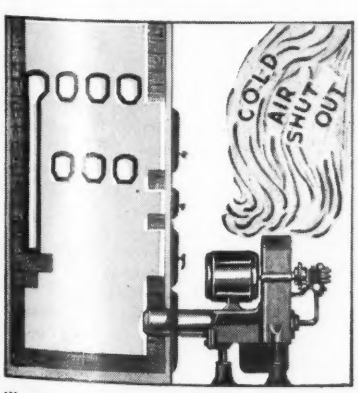


Illustration above shows how AIR-SEEL prevents intake of cold air.

GET THE FACTS TODAY!

Those Who Know Choose SILENT GLOW OIL BURNERS

To: THE SILENT GLOW OIL BURNER CORP.

850 Windsor Street, Hartford 5, Connecticut
1500 So. Western Ave., Chicago 8, Illinois

Please send me complete information about AIR-SEEL

Name _____

Company _____

Street _____

City _____ State _____

tank wagons." OPS bases the prices upon a survey it made of all segments of the industry and, while the regulation contains no basic price changes, it includes those already authorized under CPR 17 and incorporates transportation cost increases, averaging .08 of a cent per gallon, authorized by the Massachusetts Department of Public Utilities.

"To conform with the customary pricing practice in the Greater-Boston area of adjusting prices by tenths of a cent, and to provide uniformity throughout the area," the regulation explains, "one-tenth of a cent has been added to the base period tank wagon ceiling prices. In the case of inland terminals and jobbers' barge terminals or bulk plants one-twentieth of a cent has been added to cover the additional transportation costs to those points."

Specific prices in the Greater-Boston area, as established by Supplementary Regulation 4, follow:

Type of sale	*Range Oil No. 1 Fuel Oil, Kerosene*	*Nos. 2, 3, and 4 Distillate Fuel Oil*
Sales at Refineries-Tanker Terminals:	*(cents per gallon)*	
To barge terminal resellers	10.05	9.05
To barge buyers	10.20	9.20
To tank car buyers	10.30	9.30
To tank wagon rack buyers	10.90	9.90

Where a seller at the refinery or tanker terminal level customarily sold to a barge terminal reseller or barge buyer at the tank car price during the base period, such seller may continue such practice.

Type of Sale	*Range Oil No. 1 Fuel Oil, Kerosene*	*Nos. 2, 3, and 4 Distillate Fuel Oil*
Sales at Primary Terminals other than tanker terminals:	*(cents per gallon)*	
Pipeline and barge to tank car buyers	10.40	9.40
Other Inland:		
To tank car buyers	10.45	9.45
To tank wagon rack buyers	10.95	9.95
Sales at Jobbers' Barge Terminals:		
To tank wagon rack buyers	10.95	9.95
Sales at Jobbers' bulk plants:		
To tank wagon rack buyers	11.15	10.15
Delivered in tank wagons	14.6	12.6
Seller may add his customary price differentials on hose deliveries of range oil, No. 1 fuel oil, kerosene for quantities of less than 100 gallons, with maximum price of	15.6	——
Carried in cans	18.1	——

It is significant to note the difference between prices allowed tank car buyers and those designated for tank wagon rack buyers. The generous difference makes it attractive for large gallonage purchasers to consider acquisition of their own bulk storage to permit quantity purchases at the lower price.

The ceiling prices became effective November 26, 1951.

❖

Socony-Vacuum adjusts Degree-Days for Districts

A STUDY, undertaken by A. J. McIntosh, Socony-Vacuum Oil Co., was instituted to establish normal degree-day requirements for District I, the East Coast, and District II, the Midwest, rather than the usual arrangement of compiling these figures by individual cities. All principal cities were weighted by their supply significance to arrive at anticipated normal requirements for the Districts on a calendar year basis, for fueloil demand purposes.

In District I the adjusted normal is indicated to be 5458 degree-days for the year, divided as follows: 1st quarter, 2830; 2nd quarter, 660; 3rd quarter, 70 and 4th quarter, 1898 degree-days. District II's normal of 6290 degree-days is divided: 1st quarter, 3217; 2nd quarter, 730; 3rd quarter, 104 and 4th quarter, 2239 degree-days.

Using these computations, the 1949-50 heating season in District I totalled 5053 degree-days, 7.4% warmer than the normal and the 1950-51 heating season total was 10.5% warmer, or a total of 4888. In District II the 1949-50 heating season was just 1% less than normal, registering a total of 6216 and the 1950-51 heating season was 2.6% colder, or a total of 6454 degree-days.

The table reproduces totals for both heating seasons in Districts I and II, with the tabulation arranged to start with the 3rd calendar quarter to reflect the heating season totals commencing with the month of September.

❖

Warm Air emphasized in new home Survey

A SURVEY, completed recently by the Housing and Home Finance Agency, and reported in the October *Bulletin* of the National Warm Air Heating and Air Conditioning Association, examined characteristics of 30,000 individual dwelling units insured by FHA and built throughout the country in 1950.

Area of the houses surveyed averaged about 1,000 sq. ft., 88% being of one-story construction and 64% without basements. The basementless homes were exactly divided between those built on a concrete slab and those having crawl spaces. Masonry chimneys were used in 87% of the homes surveyed, 6% had fabricated chimneys and 7% had none.

Warm air heating predominated in this group of homes, 80% of them being equipped with warm air systems of all types, 11% had hot water heating systems and 1% used steam, 1% used electricity for heating and 7% had none. Where ducts were used in these homes, 88% were made of sheet

Weighted Degree Days, District I

Calendar Quarter	*1949-1950 Heating Season*	*1950-1951 Heating Season*	*Adjusted Normal*
3d	95	119	70
4th	1638	1740	1898
1st	2609	2491	2830
2nd	711	538	660
	5053	4888	5458
District II			
3d	156	82	104
4th	2019	2393	2239
1st	3188	3272	3217
2nd	853	707	730
	6216	6454	6290

boost profits this easy way—

stock and sell the

H.C. Little oil burner

—an automatic, self-lighting burner with

9 SALES-PRODUCING ADVANTAGES

...including "progressive low-temperature carburetion" and catalytic heat control that gives more comfort at less cost!

1 GREATER ECONOMY—Burns low cost furnace oils—including catalytic oils.

2 GREATER EFFICIENCY—More heat is put into home—less goes up chimney—because burner operates at maximum efficiency with a minimum amount of air.

3 HIGHER HEAT CAPACITY—Produces greater heat output for its size, because of patented design.

4 "PROGRESSIVE LOW-TEMPERATURE CARBURETION"—An exclusive principle of operation found only in the patented H. C. Little Oil Burner. This unique burner has been successfully used in more than 200,000 installations and is a distinct contribution to the science of domestic oil heating.

5 GREATER CLEANLINESS—No smoke, no soot, no carbon to soil drapes, walls or upholstery because patented burner design assures clean, smokeless burning of even the low cost furnace oils.

6 NO NOISE—Ideal for home heating because there is no noise, no hum, no vibration—and no interference with radio or television reception.

7 NO MOVING PARTS—Trouble-free construction of burner assembly has no motors, no blowers, no nozzles—no moving parts of any kind.

8 LISTED BY UNDERWRITERS' LABORATORIES...for use with #1 oil, Commercial Standard CS-12-48 grade or #1, #2 or #3 oil, Commercial Standard CS-12-40. #200 Pacific Coast oil may be used.

9 100% AUTOMATIC—This is the ONLY vaporizing self-lighting oil burner with truly automatic electric ignition and thermostatic control.

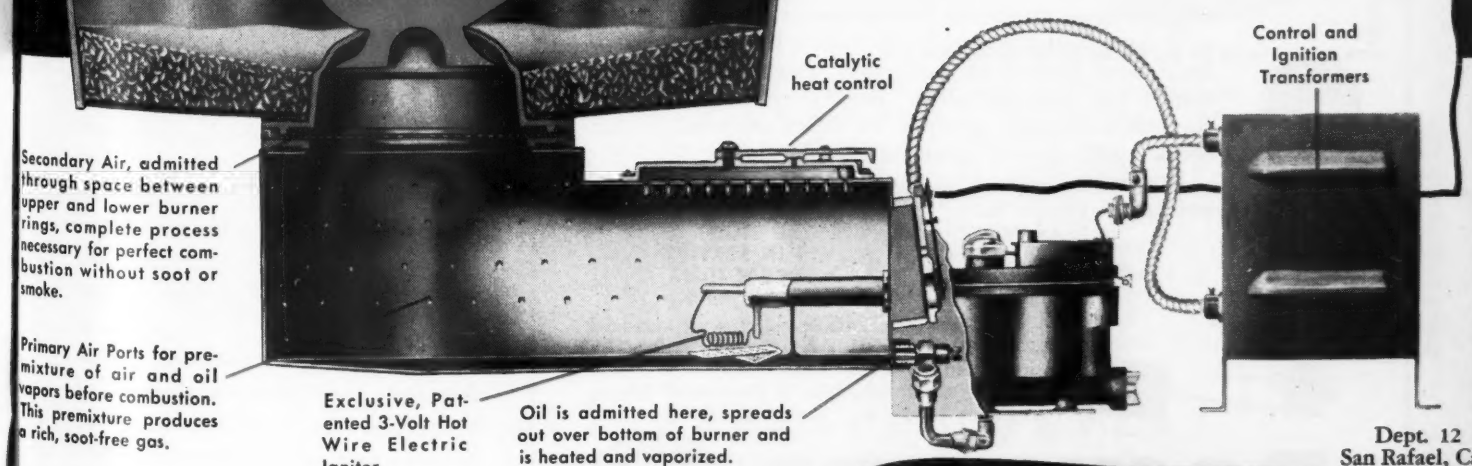
NO PILOT LIGHT!

EXCLUSIVE, PATENTED 3-VOLT ELECTRIC IGNITION

The H. C. Little oil burner has no pilot light!—it is equipped with a patented, low-voltage ignition system that has an electrically heated, 3-volt spiral resistance coil which automatically ignites the oil when the thermostat calls for heat. This unique ignitor is located in the relatively cool front end of the burner where it cannot be weakened by excessive heat, thus giving years of reliable, trouble-free service.

"PROGRESSIVE LOW-TEMPERATURE CARBURETION"

In the patented H. C. Little Oil Burner, furnace oil is subjected to an initial low temperature. The more volatile fractions are vaporized first and then, as the oil flows along the bottom of the burner, the temperature gradually increases and the less volatile fractions are *progressively* vaporized. All fractions are thoroughly mixed with air under proper conditions of temperature for complete "pre-oxygenation." The oil is thus prepared for complete and efficient combustion without "cracking" and with no deposit of soot or hard carbon.


Catalytic heat control
Control and Ignition Transformers
Secondary Air, admitted through space between upper and lower burner rings, complete process necessary for perfect combustion without soot or smoke.
Primary Air Ports for premixture of air and oil vapors before combustion. This premixture produces a rich, soot-free gas.
Exclusive, Patented 3-Volt Hot Wire Electric Ignitor
Oil is admitted here, spreads out over bottom of burner and is heated and vaporized.

MORE HEAT AT LESS COST FOR YOUR CUSTOMERS! MORE SALES FOR YOU!

Write today for facts and sales information about how you can make more money by handling the H. C. Little COMPLETE LINE OF OIL HEATING EQUIPMENT—*conversion oil burners, wall furnaces, floor furnaces, forced air furnaces, winter air conditioners, circulating heaters, etc.*

Dept. 12
San Rafael, C

H.C. Little
Burner Company, Inc.

steel, 10% were of aluminum construction and the remaining 2% were other types.

Gas was used in 60% of the homes, fueloil in 31%, other fuels in 2% and 7% used no fuel.

❖

Bucks County Levitt Homes to be oilheated

LEVITT AND SONS, Manhasset, N. Y., is preparing to build 10,000 homes in Bucks County, Pa. for the new Fairless Works of United States Steel, with the prospect of an additional 6,000 to be constructed, if the demand makes it necessary.

All homes in the project, according to plans detailed by Irwin Jalonack, Levitt's chief mechanical engineer, are to be oilheated, using a radiant heated slab similar to that being used in Levittown, N. Y. The boiler-burner unit to be employed furnishes domestic hot water, as well as taking care of heating requirements, and features a fixed bypass to siphon off a little of the very hot water and mix it with return water from the slab to prevent the heating system from being supplied with excessively hot water and so that the domestic hot water system does not suffer from a continued heat call. One change in the system will see the use of steel tubing instead of copper tubing.

❖

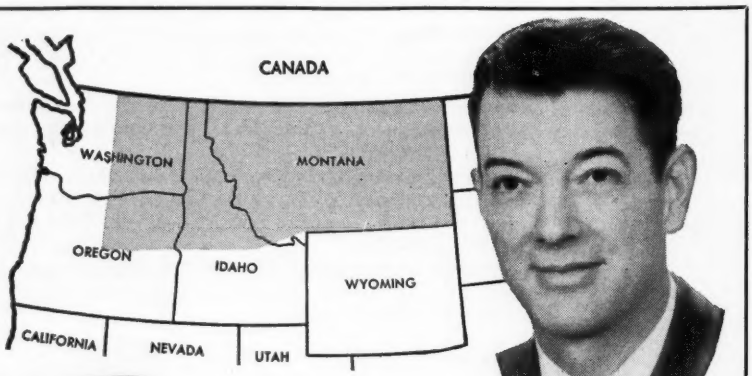
OHI Show better than three-fourths sold out

FIVE MONTHS before its opening date, the Oil-Heat Institute of America, Inc., discloses that 97 manufacturers of oilheating equipment and accessories have reserved more than 75% of the exhibit space for next April's Oil Heat Exposition. Most encouraging aspect of the advance sale of booths, according to R. H. L. Becker, OHI's managing director, is the fact that most of the companies making reservations have taken more space than they did at either of the last two shows. "This is indicative," he said, "of the industry's optimism, not only for a successful year in 1952, but also for the long-pull demand for automatic oilheat and power."

The 29th Anniversary Oil Heat Exposition is to be held in Philadelphia, April 14 to 18, and, in fact, will be two shows rolled into one since no show is planned for 1953. The Institute, at the request of exhibitors and dealers who indicated a preference for a really big show every other year, has arranged to hold its Expositions in the even years, alternating with the Heating and Ventilating Show, which in future will be held in odd years.

Floor space in the Exposition Hall of the Commercial Museum in Philadelphia, totalling 114,000 sq. ft., has been laid out for the April show, with a section reserved for those manufacturers who wish to include "live" burner exhibits. Even at this early date, it is apparent that a number of new products are due for their premiere at the 1952 show, encompassing both domestic and commercial-industrial equipment and including exhibits of goods and services, ranging from office systems to tank trucks, nozzles to steam generators.

An attendance of 7,000 equipment



"Rochester GAUGES

SAVE OUR DEALERS MONEY BY CUTTING DOWN LONG-DISTANCE SERVICE CALLS!"

"Our dealers serve an area that covers Eastern Washington and Oregon, the panhandle of Idaho, and the state of Montana. That means lots of miles for a service call. In the 10 years we've been handling Rochester "Dual-Dial" Gauges we've found that we can depend on them to keep our dealers' service calls to a minimum. The result is bigger profits for all of us."

Charles A. Black

CHARLES A. BLACK OIL EQUIPMENT
Spokane, Washington

Mr. Black is typical of wholesalers the country over who have found through experience that the positive leak-proof feature of Rochester "Dual-Dial" Gauges stands for dependability. And they've found that Rochester Gauges pay off in years of trouble-free service and greater customer satisfaction.

Rochester "Dual-Dials" can mean more profits to you, too! Here's why:

- LEAK-PROOF
- PRESSURE TIGHT
- EASY TO READ
- PROVED IN SERVICE
- INCREASE CUSTOMER SATISFACTION
- UNDERWRITERS' LISTED for 25 years

Stocked by your wholesaler for all standard basement oil burner storage tanks with 1½" and 2" flanges. *Order today.* Rochester Manufacturing Company, Inc., 8 Rockwood Street, Rochester 10, N. Y.

ROCHESTER
MANUFACTURING COMPANY, INC.
DIAL THERMOMETERS GAUGES AMMETERS

ROCHESTER DEPENDABLE ACCURACY GAUGES

MONCRIEF

Designed for *Either* Approved for *Both*

GAS OR OIL

AND . . . with the same operating EFFICIENCY!!

Any uncertainty about the availability of gas for house heating is not a handicap to the Moncrief dealer. On the contrary, it is a help to the Moncrief dealer!

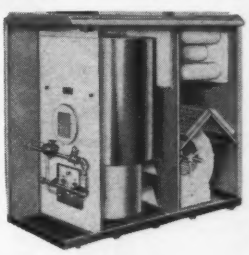
For he can offer home owners, and builders, Moncrief furnaces that are equally satisfactory for either gas or oil heating! He can install the furnace and duct work at any time, and let the installation of the burner be deferred until the arrival of cold weather.

For example, he can give home owners and builders a Moncrief furnace in which they can burn oil for years, and then by simply changing burners, convert the furnace into an equally efficient gas fired heating plant.

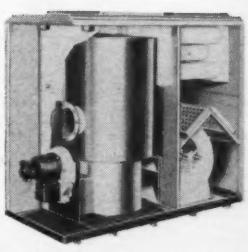
Builders and home owners like the Gas-Oil versatility of Moncrief Furnaces. Increase your sales with Moncrief!

MONCRIEF AIR CONDITIONING UNIT

As a gas-fired unit. 100,000 to 250,000 B.T.U. Input

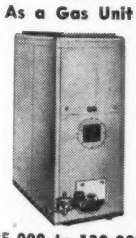


As an oil-fired unit. 64,600 to 180,000 B.T.U. at register



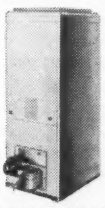
THE GRAVITY FURNACE

As a Gas Unit



85,000 to 130,000 B.T.U. Input

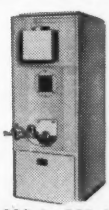
As an Oil Unit



60,600 to 85,000 B.T.U. at register

THE UTILITY A.C. UNIT

As a Gas Unit



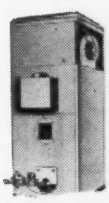
95,000 to 125,000 B.T.U. Input

As an Oil Unit

75,100 to 106,000 B.T.U. at Bonnet

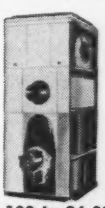
THE COUNTERFLOW UNIT

As a Gas Unit



95,000 to 115,000 B.T.U. Input

As an Oil Unit



75,100 to 84,000 B.T.U. at Discharge Outlet

THE HENRY FURNACE COMPANY

Medina, Ohio

HEATING AND AIR CONDITIONING UNITS — MONCRIEF — FURNACE PIPE AND FITTINGS

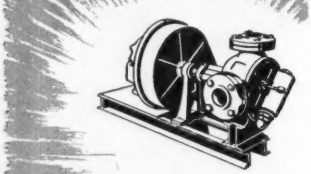
and fueloil dealers, engineers, architects, contractors, builders and government purchasing agents, plus 25,000 public admissions is anticipatd, which T. A. Crawford, president of OHI, sees as "a rare opportunity to sell direct to tailor-made prospects."

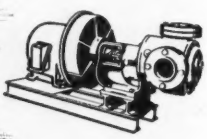
Lon Casler, executive vice-president, Eureka-Williams Corp., is chairman of the Program Committee for the 29th Annual OHI Convention, running concurrently with the Exposition. His committee is rounding up talent for Industry Day, Engineering Day and Dealer Day sessions. Following the custom of past years, these are to be open meetings.

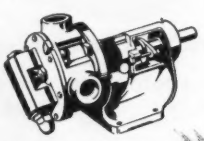
Complete details on the Convention and information on exhibit space available for the Exposition can be secured from Oil-Heat Institute of America at 6 East 39th Street. The following companies had reserved the booth spaces indicated as of November 14:

Ace Engineering Co.
Acme Electric Corporation
Airtemp Division
Chrysler Corporation
Aldrich Company
American Artisan
Anchor Division
Stratton & Terstegge Co.
Automatic Devices Co.
Bacharach Industrial Instrument Co.
Bell & Gossett Company
Bethlehem Foundry & Machine Co.
Bryant Heater Div.
Affiliated Gas Equipment Inc.
Burnham Corporation
Century Engineering Corp.
Cleaver Brooks Co.
Columbia Boiler Co., Inc.
Combustioneer Division
Steel Products Engineering Co.
Commercial Filters, Inc.
Delavan Manufacturing Co.
Delco Appliance Division
General Motors Corporation
The Dole Valve Co.
Eckhart Mfg. Co., Inc.
Eddington Metal Specialty Co.
Field Control Division
H. D. Conkey Company
Fitzgibbons Boiler Company
Fluid Heat Division
Anchor Post Products, Inc.
FUELOIL & OIL HEAT
General Automatic Products Corp.
General Electric Company
Air Conditioning Dept.
General Electric Company
Apparatus Dept.
General Filters, Inc.
General Fittings Co.
Gerotor May Corporation
May Oil Burner Division
Sid Harvey, Inc.
Harvey Whipple, Inc.
The Heil Company
Herco Oil Burner Corporation
Iron Fireman Mfg. Co.
S. T. Johnson Co.
Kaustine Company, Inc.
Kent Co., Inc.
Jackson & Church
Manville Boiler Co., Inc.
Marrieta Metal Products Co.
McDonnell & Miller, Inc.
Mercoid Corporation
The Miller Co.
Minneapolis-Honeywell Reg. Co.
Monarch Manufacturing Works, Inc.
Morse-Smith-Morse, Inc.
National Radiator Company
Norge Heat Division
Borg-Warner Corp.
J. V. Patten
Penn Electric Switch Co.
Perfex Corporation
Pullman Sales Corp.
Preferred Utilities Mfg. Corp.
Quiet Heet Manufacturing Corp.
Radiant Utilities Corp.
Rochester Manufacturing Co.
Scott-Choat Publishing Co.
Scully Signal Company
Skuttle Manufacturing Co.
H. B. Smith Company, Inc.
Sparkler Manufacturing Co.
Sundstrand Engineering Co.
Sundstrand Machine Tool Co.
Hydraulic Division
Sun-Ray Burner Mfg. Corp.
Thatcher Furnace Co.
Timken Silent Automatic Div.
The Timken-Detroit Axle Co.
Toridheet Division
Cleveland Steel Products Corp.
The Torrington Manufacturing Co.
Tuthill Pump Company
U. S. Machine Corporation
U. S. Radiator Corp.
Waterfilm Boilers, Inc.
Watts Regulator Company
Webster Electric Company
White-Rodgers Electric Co.
Williams Oil-O-Matic Division
Eureka Williams Corporation

Yes... there is a difference!







In the warm-up period before the game you could never guess which is the high-scoring forward. Only when you watch them in action can you see the big difference in performance.

Rotary pumps are like that, too. On the outside, they all look pretty much alike. You have to *test them in actual use* to see for yourself why INVADER Pumps are first choice among oil men—because of important differences *on the inside.*

ASK YOUR SUPPLY HOUSE OR WRITE FOR FULL INFORMATION AND PRICES

Here's the inside reason why INVADER Pumps perform better . . . longer. The new and improved tooth design provides a *positive seal* and *rolling contact* . . . assures you less "down" time, fewer replacements, and reduced power costs!

INVADER CONSTRUCTION

OLD STYLE CONSTRUCTION

Invader PUMPS

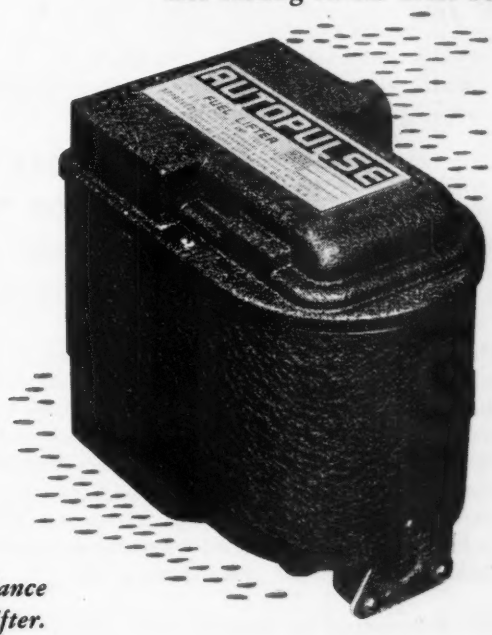
The SCHIRMER-DORNBIRER PUMP Co.

1719 EAST 39th STREET • CLEVELAND 14, OHIO

I just sold another customer an AUTOPULSE electric fuel lifter!

And no wonder the Customer is happy . . . for her *no more drudgery . . . no more spilled oil* . . . no more stained clothes and above all a more even *fully automatic operation.*

After all, anybody who purchases an oil fired space heater, range water heater, space heater or small furnace will buy an Autopulse Automatic Electric Fuel Lifter and you might as well be the one to make the sale, especially when Autopulse is the best you can install and the price is lower than any other. I admit I don't get "smacked" every time I sell an Autopulse — but I do make an extra sale — and an extra profit, just by bringing it to the Customers' attention — at the end of the month — it makes nice reading in the order book.



AUTOPULSE makes it easier for you to meet competition because:

1. Autopulse is efficient, durable — and the price is much lower than any other.
2. Autopulse turns on when the unit needs fuel, off when the fuel supply is replenished — needs little or no attention.
3. Autopulse is easily installed, after oil supply lines are connected, just hook it to any 115 volt electric line.
4. Provides your Customer with a fully automatic fuel supply.

Write for information and descriptive folder — every oil heating appliance owner or buyer is a potential prospect for an Autopulse Electric Fuel Lifter.

AUTOPULSE Corporation
218 E. Dowland Street
Ludington, Michigan, U. S. A.

Industry Groups

Activities of local and national industry associations are reported monthly in this department. Secretaries are invited to send reports of their Group's activities to reach the editor by the 18th.

NYOHA elects Miller as President for 1952

ELECTION of officers, held by the New York Oil Heating Association, Long Island City, N. Y., during its regular November meeting, resulted in Edward G. Miller, Quiet-Heet Oil Burner Co., being named president for 1952.

Other officers named are: Harold Layman, H & L Oil Burner and Heating Supply Corp., vice-president; Joseph Carini, Empire Heating Corp., treasurer; John J. Johnston, John J. Johnston Co., secretary and Herb Helman, Helman Chimney Cleaning Co., sergeant-at-arms.

Philip H. Schepp continues as executive secretary of the group.

Kansas City Trade Club salutes oil Industry

THE OIL INDUSTRY of Kansas City was saluted by members of the International Trade Club of Greater Kansas City at its regular luncheon meeting on November 27. Marlin M. Volz, dean of the School of Law, University of Kansas City, gave the principal address on world oil resources. Following the talk, a colored movie of the oil fields in the Middle East, "The Desert Venture," was shown, presented by F. W. McGarry, Standard Oil Co. (Ind.).

Special guest of honor at the luncheon was Jay W. Wilson, chairman of the Oil Men's Club of Kansas City.

Wisconsin Association holds annual Meeting and Election

THE WISCONSIN Oil-Heat Association, Milwaukee 2, Wis., held its annual meeting and election of officers on November 29 at the Wisconsin Hotel. Alfred Hegeman was elected president, with LaVerne Schaetzel and L. A. Falk named vice-presidents and John Weiler, treasurer. Harold M. Mottram was re-designated executive secretary.

Named to three year terms on the board of directors were Carter Wells, who had been president of the Association during 1951, and Julius Seiy. Donald B. Condon was chosen as a member of the board for a one year term, representing the Fox River Valley Oil-Heat Association and Emery McNeill was designated for a similar period as representative of the Gateway Oil-Heat Association.

OHI reports good Sales of Handbook of Oilburning

OIL-HEAT INSTITUTE of America, Inc., reports sales of the Handbook of Oil Burning proceeding briskly. Orders have been received from all the states of the United States and from fourteen foreign countries, Netherlands and Swedish bookstores especially having been large purchasers. The major oil companies have ordered and reordered a number of times, and just recently one of them ordered a large number for use in all its foreign offices. The U. S. armed services have

The Bethlehem Crusade-a-therm

NO BIGGER THAN A REFRIGERATOR, YET IT AUTOMATICALLY SUPPLIES ALL YOUR HEAT, ALL YOUR WATER!

The Bethlehem Crusade-a-therm is a complete, self-contained heating plant that replaces the old-fashioned boiler, with its grates, doors, drafts, checks, etc., and the hot water heater or coil, with its unsightly storage tank and piping. Built right into the Crusade-a-therm is the remarkable Bethlehem Crusader Burner, a compact precision machine designed to perform its function with greater efficiency than anything of its kind before, insuring clean, even automatic heat, without thought or effort on the home owner's part.

The **C-liminator,** an electrical delay switch that forever eliminates smoke on start, is standard equipment on the Bethlehem Crusade-a-therm!

BETHLEHEM FOUNDRY & MACHINE COMPANY
BETHLEHEM, PENNSYLVANIA

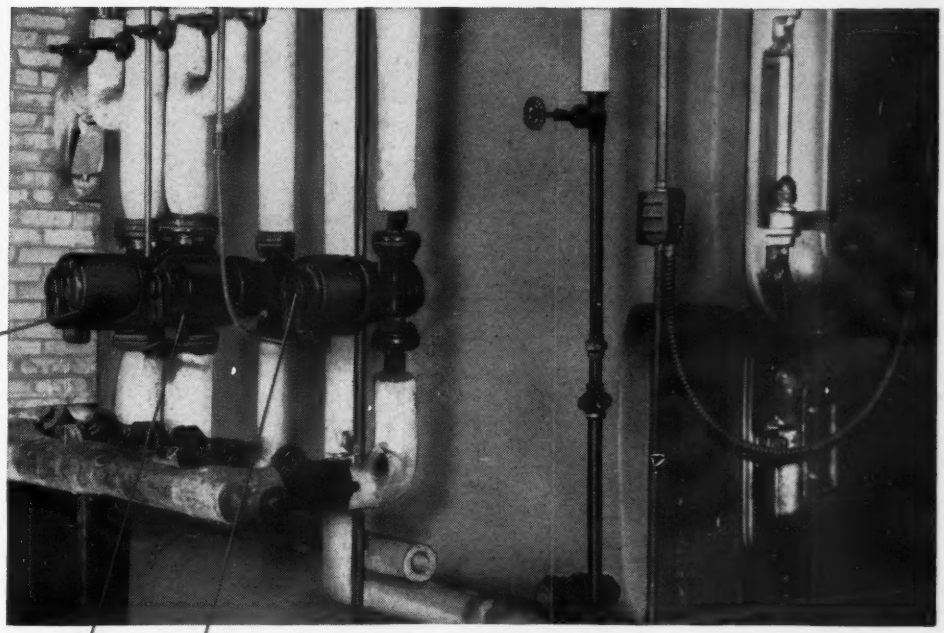
A few exclusive Bethlehem Crusade-a-therm territory Franchises are still available. Wire or write immediately for full information.

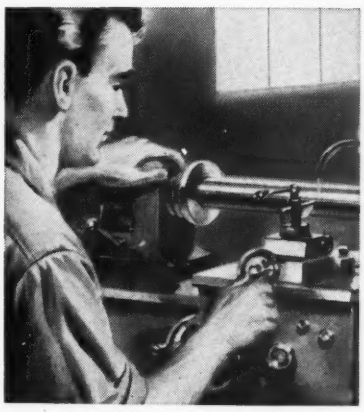
Three different temperatures

FROM THE SAME BOILER

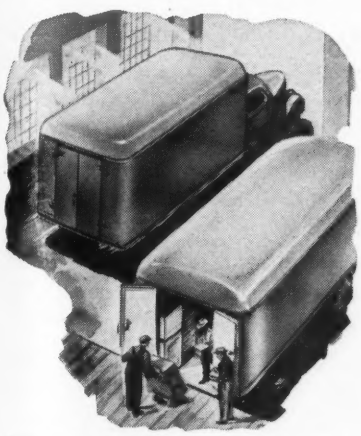
B&G *Hydro-Flo** Heating

B & G *Hydro-Flo* Heating keeps offices at the proper temperature for sedentary occupations—prevents over and under heating. 72°





Worker efficiency is stepped up by B&G *Hydro-Flo* Heating. Each department can be maintained at the temperature best suited to occupational activity. 68°

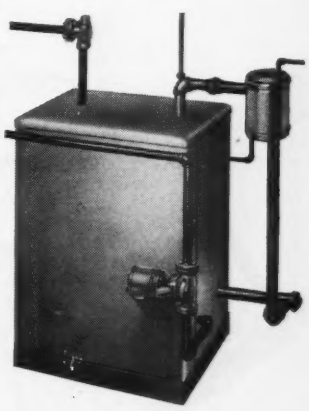


Garages and storerooms need little heat. B & G *Hydro-Flo* Heating saves fuel by keeping such areas at a comparatively low temperature. 50°

Dividing a B & G *Hydro-Flo* System into a number of heating zones permits different temperatures to be maintained in different sections of a building. The advantages are two-fold . . . greater comfort for workers at every level of physical activity and a substantial reduction in heating cost.

B & G *Hydro-Flo* Heating—a forced hot water system—eliminates the usual causes of uneven, wasteful heating. Water as a heating medium can be so closely controlled that every change in the weather is met with a corresponding change in the heat supply. Hence, indoor temperature is maintained uniformly at whatever degree is desired.

Any type of radiant heating units can be used with B & G *Hydro-Flo* Heating—baseboard panels, convectors, radiators, radiant floor and ceiling panels or unit heaters. No complex controls are required —*Hydro-Flo* equipment is amazingly simple and dependable.



For residential application

Hundreds of thousands of homes and apartments today have B & G *Hydro-Flo* Heating. This system provides radiant sunny warmth with all the economy of a controlled heat supply . . . and in addition furnishes an abundance of domestic hot water all year 'round.

Send for catalog of B & G *Hydro-Flo* Heating Products

BELL & GOSSETT

COMPANY

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Canadian Licensee: S. A. Armstrong, Ltd., 1400 O'Connor Drive, Toronto, Canada

*Reg. U. S. Pat. Off.

been good customers, copies having gone to numerous Army, Navy and Marine Corps bases.

Libraries throughout the U. S. and Canada report the Handbook much requested by their readers, and a number of schools and colleges report its use as a text in their oilburner courses, or as a reference work in their libraries.

Copies of the Handbook may be secured from the Institute at 6 East 39th St., New York 16, N. Y. The book, which contains more than 500 illustrations and some 90 tables and charts in its 950 pages, sells for $10 a copy.

Philadelphia Oil Heat Association organized

ORGANIZATION of the Oil Heat Association of Metropolitan Philadelphia has been completed, and the organizing committee has applied for a charter. Lionel L. Jacobs, president, outlines the reasons for forming the new association by explaining that "a considerable group of those interested solely in the distribution of fueloil and oilheating equipment believe some very necessary things must be done and . . . that these things can only be done by those whose interests are exclusively confined to fueloil heating."

Mr. Jacobs acknowledged the work of other Associations, but declared they are limited in such activities as meeting gas competition and, in the opinion of the organizers, a separate, detached group can work more effectively for the oilheating industry.

Harry J. Magee, Jr., Harry Magee Oil & Burner Co., is 1st vice-president; Hugo V. Spitzer, Allied Oil Co., Inc., is 2nd vice-president; William W. Miller, Major Petroleum Co., is treasurer and Bruce L. Jacobs, Lionel L. Jacobs & Sons is secretary. Lloyd W. Foutz has been retained as a full-time executive director.

Besides these officers, the following comprised the organizing committee and make up the board of directors: Sydney J. Bacal, ABC Oil & Burner Co.; John M. Bennis, Edward F. Bennis & Sons; Harvey L. Bond, Edward R. Sabin Co.; John C. Campbell, Elliott-Lewis Corp.; George H. Clement, Modern Heat & Fuel Co.; Irving I. Fox, Fox Petroleum Products Co.; I Sigmund Goldenburg, Royal Petroleum Corp.; Fred C. Haab, F. C. Haab Co., Inc.; William H. Hartley, Olney Oil & Burner Co.; Wm. A. P. Henninger, Federal Oil Burner Co., Inc.; W. W. Jackson, Accurate Heating & Home Service; Maurice L. Caniff, National Heat & Power Co.; James A. MacDougall, Automatic Heat, Inc.; James A. McKee, McKee Heat & Fuel Co.; J. E. Rowland, J. E. Rowland & Co., Inc.; J. J. Skelton, III, J. J. Skelton & Son and Harold C. Thorpe, American Climatic Control Co.

An industry mass meeting will be held soon to inaugurate formally the activities of the Association, to which have been invited all independent concerns in the greater Philadelphia Area engaged in the selling of fueloil and oilburners.

Hardwick named OIIC Chairman

ON NOVEMBER 7, during the API's annual meeting in Chicago, Charles Z. Hardwick, vice-president and a director of The Ohio Oil Co., Findlay,

● Remember, of all the warm air furnaces now being installed, 4 out of 5 are *forced air* units. Added to these are the *4 million* forced air furnaces already in operation. Cash in on this huge market by selling AMER-*glas* Filters. Set yourself up to handle the post-Christmas volume two easy ways: 1. Remind your customers that *they need filters.* 2. Be sure your stock of AMER-*glas* Filters is ready for the demand . . . send for the AMER-*glas* profit story, today!

LET US SHOW YOU HOW TO MAKE MONEY WITH **AMER-glas**. . .

AAF
An *Engineered* product of
American Air Filter
COMPANY, INC.

AMERICAN AIR FILTER CO., INC., 134 Central Ave., Louisville 8, Ky.

Please send me complete information on AMER-glas Replaceable Air Filters. Tell me how I can get free selling aids.

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ ZONE____ STATE_____

MAIL TODAY

WHY BUY GAS FURNACES?

WHY BUY OIL FURNACES?

BUY Luxaire® FURNACES

THEY'RE DESIGNED AND APPROVED FOR EITHER GAS OR OIL

Luxaire Basement Air Conditioning Unit
As a gas-fired unit 100,000 to 250,000 B.T.U. Input
Luxaire Basement Air Conditioning Unit
As an Oil-fired unit 64,600 to 180,000 B.T.U. at Register

Why complicate your buying—your selling—your stock inventories—your perplexing fuel situations? You can eliminate all 4 complications when you buy Luxaire!!

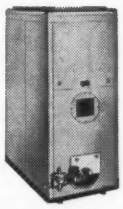
Yes—you can be independent of these troublesome problems with Luxaire, because Luxaire Furnaces and Air Conditioning Units are so ingeniously designed, engineered and constructed that they are approved to burn either GAS or OIL!

Luxaire units with Luxaire Gas Burners are A.G.A. approved! These same Luxaire units with the Underwriters Laboratories approved Luxaire Oil Burners operate equally as efficiently as the Gas Unit.

So why procrastinate? BUY Luxaire—the complete line of heating equipment that meets every demand of the heating market!

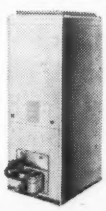
THE GRAVITY FURNACE

As a Gas Unit



85,000 to 130,000 B.T.U. Input

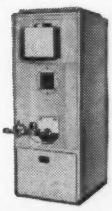
As an Oil Unit



60,600 to 85,000 B.T.U. at Register

THE UTILITY A.C. UNIT

As a Gas Unit



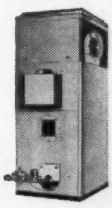
95,000 to 125,000 B.T.U. Input

As an Oil Unit

75,100 to 106,000 B.T.U. at Bonnet

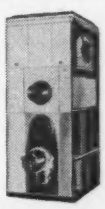
THE COUNTERFLOW UNIT

As a Gas Unit



95,000 to 115,000 B.T.U. Input

As an Oil Unit



75,100 to 84,000 B.T.U. at Discharge Outlet

DESIGNED and APPROVED for EITHER GAS or OIL FIRING

THE Luxaire® C. A. OLSEN MANUFACTURING COMPANY • • ELYRIA, OHIO

HEATING & AIR CONDITIONING UNITS

fueloil & oilheat

Ohio, was elected 1952 national chairman of the Oil Industry Information Committee. He will take office on January 1, along with the following vice-chairmen named at the same time: Philip C. Humphrey, manager of public relations, The Texas Co., New York; Stewart Brown, manager of public relations, Standard Oil Co. of California, San Francisco; Stanton K. Smith, president, Smith Oil and Refining Co., Rockford, Ill.; William Finnegan, special advisor to the president, Humble Oil and Refining Co., Houston, Texas and Ralph Carey, Shell Oil Co., Boston.

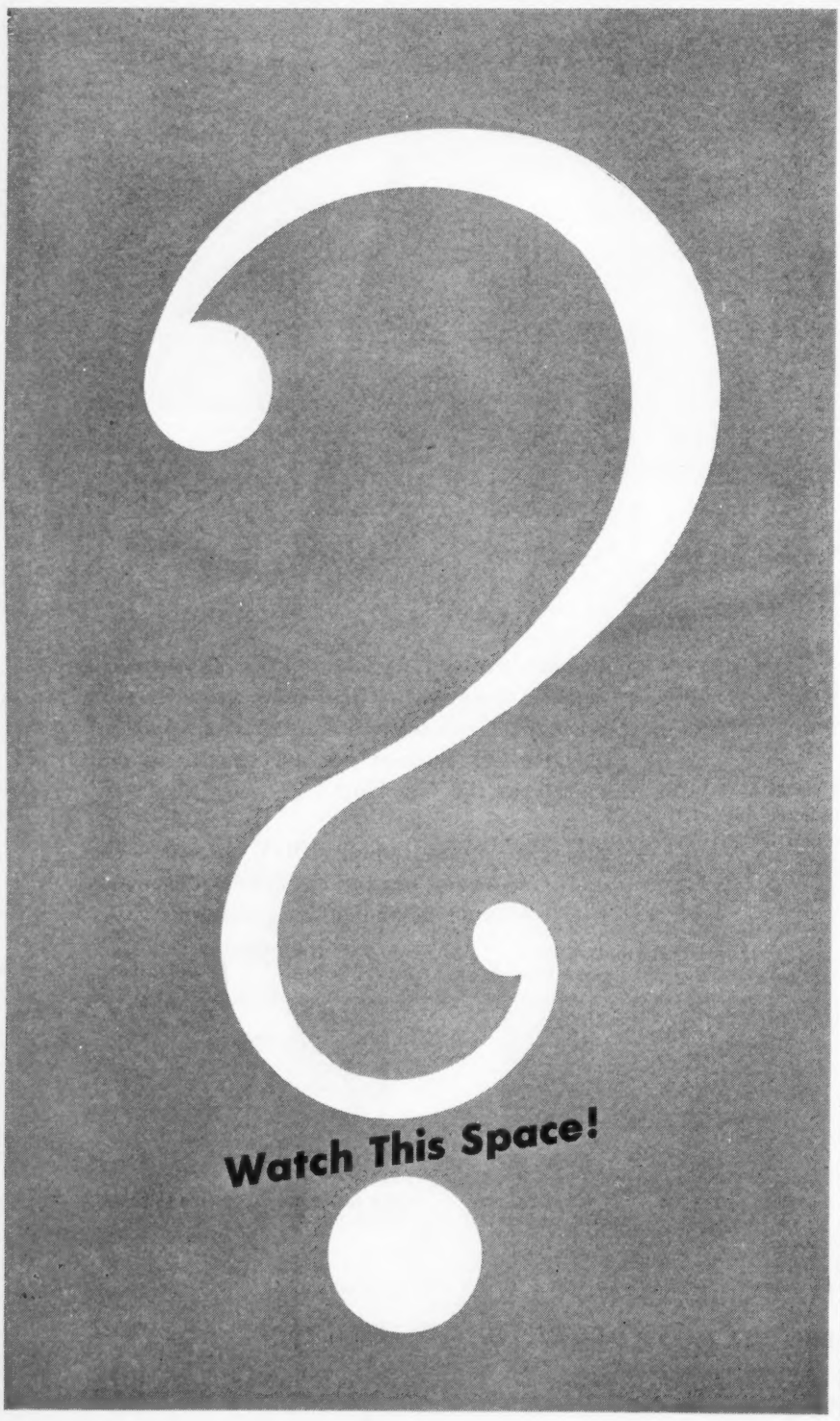
The OIIC will hold four quarterly meetings during 1952: February 18 at San Antonio, Texas; May 19 at San Francisco; September 9 at Atlantic City and November 8 in Chicago.

Steel Boiler Group meets with Government Officials

THE NOVEMBER 8 meeting of the Steel Firebox Boiler Industry, held at the Shoreham Hotel in Washington, featured a symposium participated in by 90 manufacturers and guests and 17 Government officials. Paul K. Addams, president, Fitzgibbons Boiler Co., New York, N. Y., acted as chairman of the meeting.

Among Government officials who took part in the symposium were the following from the National Production Authority: Paul B. Holmes, F. E. McArdle, F. X. Gilg, George E. Hoffman. Robert S. Jones, Federal Housing Administration and L. D. Langley, Federal Security Administration also contributed.

The meeting was an all-day affair that included a morning and afternoon session, a luncheon and cocktail party. The afternoon session was an employee relations meeting, with A. J. Hall, Burnham Corp., presiding. Dr. Curtis Aller, director, Office of Economic Analysis, Wage Stabilization Board was guest speaker.



Washington Institute marks 27th Anniversary

TWENTY-SEVEN YEARS AGO, in 1924, 4 oilburner dealers in Washington, D. C., hit upon the idea of meeting from time to time to discuss business problems. By 1926, after the group had enlarged and welcomed several fueloil dealers to the fold, it was added to the Merchants and Manufacturers Association as the Oil Heating Division.

When it was decided in 1948 that the organization could function more effectively as a separate unit, the Oil Heat Institute of Greater Washington was formed. Under the guidance of A. Graham Shields, managing director, the Institute, which serves the area as a chapter of the Distribution Division of the Oil-Heat Institute of America, increased its membership so that today it includes better than 90% of the oilheating equipment and fuel-oil dealers.

Monthly membership luncheons are a tradition with the organization, usually featuring speakers who discuss subjects of timely interest on the conduct of business or other topics. In addition, the group sponsors an extensive advertising campaign, aimed at the home owner and selling the benefits of automatic oil heat.

Among other accomplishments is

Sell your customers fuel oil *that* WON'T CLOG FILTER SCREENS!

USE IONAD 17

Shell's additive now available to distributors for addition to any distillate fuel.

FILTER-SCREEN CLOGGING due to tars and resins, with its high service costs, can now be eliminated . . . no matter what brand of fuel oil you sell.

The Shell fuel oil additive that *prevents* this clogging is now being marketed to distributors for addition to any distillate fuel oil or diesel oil.

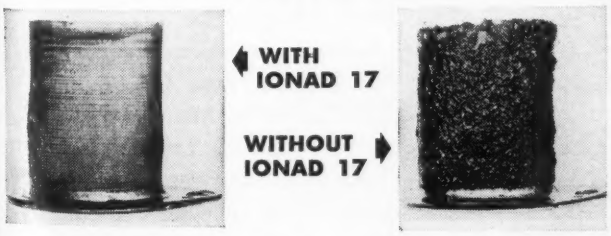
Eliminate chief cause of service expense

A very small amount of Ionad 17, added to your fuel oil stocks, will wipe all service calls due to such filter-screen clogging right off your books. Its cost is repaid many times over through this reduced service cost. And there's no estimating the value of the customer good will you build up through elimination of many service failures.

During 3 years of field testing in thousands of oil burners, not a single failure due to screen clogging has been reported where Ionad 17 was used!

For complete details, write or phone nearest Shell Chemical office.

THE SAME FUEL OIL!



Both filter screens operated for 28 days with No. 2 fuel oil.

SHELL CHEMICAL CORPORATION

CHEMICAL PARTNER OF INDUSTRY AND AGRICULTURE

EASTERN DIVISION: 500 Fifth Avenue, New York 18
WESTERN DIVISION: 100 Bush Street, San Francisco 6

LOS ANGELES · CLEVELAND
HOUSTON · BOSTON
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IONAD 17

the establishment of an oilburner training school, for the training of new technicians and advanced instruction of service and installation men who already are employed.

Fuel Oil Association of New York reorganizes

A MEETING was held during November to effect the reorganization of the Fuel Oil Association of New York, a group of terminal operators in the New York City area. Martin F. Shea, president of Burns Bros., was elected president of the Association at the meeting, as reported by the *New York Journal of Commerce*, with Fred H. Gilbert, Patchogue Oil Terminal Co., Inc., named vice-president; Joseph L. Farrell, Island Petroleum Corp., designated treasurer and Joseph H. Schwartz, Whale Oil Co., Inc., appointed secretary.

The Association was organized in 1931 and now has a membership of 35 to 40 companies. In recent years it has not been too active, but the reorganization meeting decided that the membership will "organize committees and enlarge the scope of the Association's activities to help improve oil conditions in the City of New York."

There is only ONE
TRADE MARK REGISTERED
Draft-O-Stat
BAROMETRIC DRAFT CONTROL
AND HOTSTREAM MAKES IT!

OVER ONE MILLION
SUCCESSFUL INSTALLATIONS
New Model "B" (illustrated) now available in 6, 7, 8, 9, 10 and 12 inch sizes. Write for Bulletin.
THE HOTSTREAM HEATER CO.
6925 QUINCY AVENUE • CLEVELAND 4, OHIO

OHA of Maryland elects Levin President

ELECTION of officers took place during the November meeting of the Oil Heat Association of Maryland, Baltimore 1, Md. Jack Levin, Hochschild, Kohn & Co., was named president; Edmund N. Gorman, Cumberland Coal Co., was elected vice-president; Louis G. McComas, H. C. McComas Fuel Co., became treasurer and Jason A. Parker, Parker Fuel Co., secretary.

The meeting included festivities honoring Frank M. Bell of Minneapolis-Honeywell Regulator Co. Arnold Michelson, Honeywell vice-president, joined in the tribute and before the meeting adjourned the group presented Bell with a television set and made him an honorary life member of the Association.

Plumbing and Heating Bureau holds its 32nd annual Meeting

EARL E. BROWN was named president of the Plumbing and Heating Industries Bureau, Chicago 1, Ill., at its 32nd annual meeting held October 25 in Chicago. He succeeds Jack Cooper, who continues as a member of the Bureau's board of directors. Arnold H. Goelz was re-named vice-president and a former Bureau president, George O. Toepfer, was chosen treasurer. Norman J. Radder was re-elected secretary.

Messrs. Cooper, Brown, Radder and J. A. Dwyer, chairman of the Bureau's Finance Committee presented their annual reports of activities and outlined objectives for 1952.

Directors re-elected included: E. A. Cline, The Trane Co., representing the Convector Manufacturers Association; John M. Dumser, Wolverine Tube Div., representing the Copper & Brass Research Association; Arnold H. Goelz, Kroeschell Eng. Co., representing the Heating, Piping and Air Conditioning Contractors National Association; Earl J. Gossett, Bell & Gossett Co., representing the Hot Water Heating Specialty Manufacturers.

Also, C. E. Lewis, Perfex Corp.,

YOU CAN'T HELP MAKING MONEY

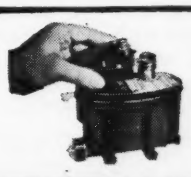
If you sell one of these famous space heaters

ALLEN'S
BARNES
BENNER-NAWMAN
BEYER
COLE HOT BLAST
COLEMAN
COLEMAN *(Canada)*
CREST *(Canada)*
CREST-AIRE *(Canada)*
CUSTOM AIRE
DOMESTIC
DRACO FIREBALL
DUO-THERM
ENTERPRISE
ENTERPRISE *(Canada)*
ESTATE HEATROLA
EVANS
EVEN-TEMP
FAWCETT TORRID-OIL *(Canada)*
FESS *(Canada)*
FINDLAY *(Canada)*
FLOOR-O-LATOR
FLORENCE
GILLEN
H. C. LITTLE
HERCO HEAT FLO *(Canada)*
INTERNATIONAL
JUNGERS
KEMAC *(Canada)*
KLEER-KLEEN
LACO
LONERGAN
MAGIC CHEF
MARCHAND *(Canada)*
MONARCH
MONARCH *(Canada)*
MONOGRAM
NESCO
NORGE HEAT
ORAN
PERFECTION
PREWAY
QUAKER
QUAKER *(Canada)*
SAFEWAY
SCOTSMAN
SIEGLER
SILENT FLAME
SUPERFLAME
THERMO-PRODUCTS
TORRIDAIRE
VIKIMATIC
WASHINGTON FRUGAL

PLUS ALL THE LUXURY OF AUTOMATIC HEAT — WITH LOW-COST, EASY TO SELL A-P COMFORT CONTROLS

Yes, if you sell one of the famous-make space or trailer heaters listed here you can offer every customer the luxury of true automatic, thermostatically controlled heat! This means easier selling, because you can offer comfort and convenience equal to the most expensive kind of heating, with no wasted heat — and substantial fuel savings!

What's more, this easy-to-sell comfort means ADDITIONAL PROFITS for you. Write now for Bulletin T-2 on A-P Comfort Controls.



EASY TO INSTALL

There's an A-P Electric or Mechanical Comfort Control actually engineered to fit these heaters. Just mount conversion top on present manual control; connect to thermostat and transformer. Mechanical thermostat even eliminates wiring!

DEPENDABLE Controls

Famous for completely reliable service . . . in oil heating . . . gas heating . . . refrigeration.

A-P CONTROLS CORPORATION

(formerly Automatic Products Company)

2458 N. Thirty-second Street • Milwaukee 45, Wisconsin • In Canada: A-P Controls Corporation, Ltd., • Cooksville, Ontario

representing the Oil-Heat Institute of America; E. M. Palmer, Kewanee Boiler Corp., representing the Steel Boiler Institute and E. R. Westphal, Weil-McLain Co., representing the Institute of Boiler and Radiator Manufacturers.

The Bureau announced publication of a booklet explaining the procedures whereby it disseminates information about the plumbing and heating industries through the medium of newspapers, magazines, press associations, libraries, schools and similar outlets. In addition the Bureau has issued five consumer booklets, including "Choosing a heating plant wisely" and "Baseboard heating," available at 10¢ each.

I-B-R revises Schedule of Modern Heating Schools

A NUMBER OF CHANGES in the schedule of I-B-R Schools of Modern Heating have been announced by The Institute of Boiler and Radiator Manufacturers. The new list contains a total of 28 schools which have been held or will be held during November and December, 1951 and the first six months of 1952. The Boston school, originally planned to be held during December has been moved to January.

A corrected list of schools, excluding those held during November in Philadelphia and Ridgewood, N. J., follows:

December 5 to 7: New Bedford, Mass., Moose Home and December 11 to 12: Trenton, N. J., Hamilton Fire Co.

January 8 to 10: Bridgeport, Conn.; January 15 to 17: Boston, Mass., Boston Consolidated Gas Co. building; January 22 to 24: Hempstead, L. I., N. Y. and January 29 to 31: Brooklyn, N. Y.

February 5 to 7: Williamsport, Pa., Y.M.C.A. Social Hall; February 13 to 15: Buffalo, N. Y.; February 18 to 20: Cleveland, Ohio and February 26 to 28: Chicago.

March 4 to 6: Milwaukee; March 11 to 13: Des Moines, Ia.; March 18 to 20: Indianapolis and March 25 to 27: Louisville.

April 1 to 3: Richmond, Va.; April 16 to 18: Baltimore; April 22 to 24: Greensboro, N. C. and April 29 to May 1: Charlotte, N. C.

OT* SERVICEMAN SAYS —

"One look and I can tell whether the unit is arranged for one pipe or two pipe system!

"There's nothing like engineering a product for the convenience of a serviceman. Here's an example of what I mean—Webster Electric Fuel Units are so marked that I can take one look and I know if it is arranged for a one-pipe or two-pipe system. Not guess work. There it is—you know where you stand at a glance. That's why I specify Webster Electric. I feel their units have been designed with me in mind. Try them—you'll see what I mean."

*Old Timer

An identical unit is made for sale in Canada by Canadian Acme Screw & Gear, Ltd. of Toronto, under license by Webster Electric Company, Racine, Wis. Established 1909.

WEBSTER ELECTRIC
RACINE ◆ WISCONSIN

"Where Quality is a Responsibility and Fair Dealing an Obligation"

May 6 to 8: Birmingham, Ala.; May 13 to 15: Jacksonville, Fla.; May 19 to 21: Atlanta, Ga. and May 26 to 28: Pittsburgh.

June 3 to 5: Rochester, N. Y.; June 10 to 12: Binghampton, N. Y.; June 17 to 19: Newark, N. J. and June 24 to 26: Hartford, Conn.

Tuition for the 3 days is $23. Further information is available from The Institute of Boiler and Radiator Manufacturers, 60 East 42nd St., New York 17, N. Y.

Oregon Meeting hears from Panel on Credit

A DINNER MEETING, held by Oregon Heating Industries, Portland 4, Ore., at Berg's Chalet on October 24, featured a credit panel, arranged by the group's Credit Committee. The discussion included a general outline of procedures and practices, designed to furnish answers to common credit and collection problems.

Announce Formation of Humidifier Association

FORMATION of the Humidifier Association has been announced by an executive committee consisting of Arthur Evans, Skuttle Mfg. Co., Detroit; Jack Carr, Maid-O'-Mist, Inc., Chicago; J. W. Galloway, Automatic Humidifier Co., Cedar Falls, Ia. and Marion Levy, Viking Air Conditioning Corp., Cleveland.

Efforts of the new association are planned for three separate branches of activity:

Research, designed to direct and encourage engineering and medical research into the proper methods and effects of the addition of controlled humidity to parched winter air;

Training, as a means of instructing warm air heating dealers on sales techniques and proper installation procedures for automatic furnace humidifiers;

Education, including a consumer publicity campaign, conducted to inform the homeowner of fuel saving possibilities, structure preservation and health benefits that result from the addition of humidifying units.

Inquiries and suggestions are solicited by the association, which is located at 312 Ferguson Bldg., Cleveland 14, Ohio.

OT* SERVICEMAN SAYS—

"Ample outlets—

I can bring my wires in conveniently!

"It's sure grand not to have to worry about bringing wires into a Webster Electric transformer. I know from the start that I can handle practically any type of condition, so I don't worry about it—I just specify Webster Electric transformers. Here's another thing—The opening is large enough so that I can easily reach in and make all my connections without being in cramped quarters. Try them—you'll never use any other."

*Old Timer

Webster Electric Company, Racine, Wisconsin, Established 1909.

WEBSTER ELECTRIC

RACINE • WISCONSIN

"Where Quality is a Responsibility and Fair Dealing an Obligation"

Everyday Snags

Extra-Hot Hot Water

Doing some diagnosing because of complaints that the hot water ran too cool on Mondays, when the laundering was being done, this service manager concluded that 160° was hot enough for the forced hot water boiler on all other days, but on Monday the boiler should be at 200°. The boiler's hot water temperature control was concealed inside the boiler jacket, and couldn't be set higher and lower easily by the lady of the house, so the service manager installed on the boiler an additional temperature control and set it at 200°. He provided a switch near the washing machine, and instructed his customer to turn this on each Monday before starting the washing machine, and turn it off when through washing. This switch, of course, boosts the boiler temperature from 160° to 200° by switching from one boiler temperature control to the other.

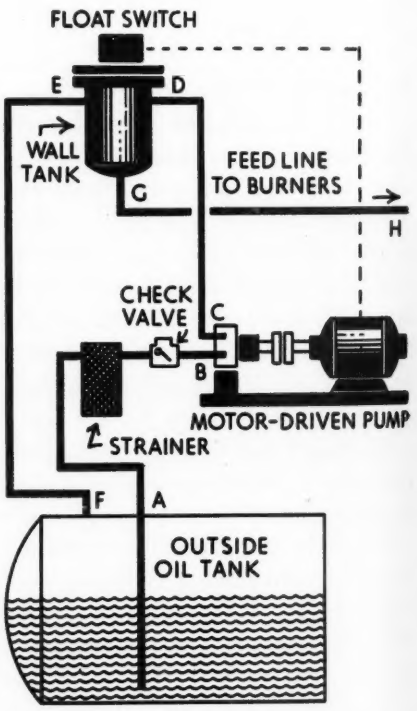
"Didn't want to keep the boiler at 200° all the time," the man explains. "The husband is an economist and he's already kicked about high oil consumption in summer."

* * *

Raising Oil up to 200 Ft.

Use a pump located near an outside tank to push oil up to a small oil storage tank located near the burners. This advice was given a reader on p. 159 of the September issue of FUELOIL & OIL HEAT. Probably because of the increasing popularity of ceiling-hung oil-fired furnaces, it evoked considerable interest. Here are details on the arrangement, which should be known to all burner dealers because the need for it comes up every so often.

The thing labelled "Wall Tank" in the drawing is the same as the tank which is part of a well-known auto-



matic wall pump. It has the same float switch as is used in this wall pump, but here this float switch is used to start and stop the motor-driven oil pump which usually is located inside the building and fairly close to the oil storage tank. Don't forget to provide a suction line filter or strainer; the motor-driven pump is not a fuel unit and hasn't a strainer in it.

The combination of the pump set and the wall tank or reservoir with the float switch provide the same type of operation as is given by the usual wall

The Eddington

CHRISTMAS BULLETIN

DECEMBER 1951

Instead of a conventional Christmas greeting, we're reprinting here a few things that say "Merry Christmas" in their own special way.

The Yule Log

The yule log is a great log of wood, sometimes the root of a tree, brought into the house with great ceremony, on Christmas Eve, laid in the fireplace, and lighted with the brand from last year's log. While it lasted there was great drinking, singing and telling of tales. Sometimes it was accompanied by Christmas candles; but in the cottages the only light was from the ruddy blaze of the great wood fire. The yule log was to burn all night; if it went out, it was considered a sign of ill-luck. . . . The brand remaining from the yule log is carefully put away to light next year's Christmas fire.

. . . Washington Irving

Two Much-Loved Christmas Carols

Silent Night

Silent Night! Holy night!
All is calm, all is bright,
Round yon Virgin Mother and Child!
Holy Infant, so tender and mild,
Sleep in heavenly peace,
Sleep in heavenly peace.

Adeste Fideles

O come, all ye faithful,
Joyful and triumphant,
O come ye, O come ye, to Bethlehem.
Come and behold Him, born the King of Angels,
O come, let us adore Him,
O come, let us adore Him,
O come, let us adore Him,
Christ the Lord.

Happy, Happy Christmas

by Charles Dickens

Happy, happy Christmas, that can win us back to the delusions of our childish days . . . that can recall to the old man the pleasures of his youth . . . and transport the sailor and traveller, thousands of miles away, back to his own fireside and his quiet home.

• • • •

I love the Christmas-tide, and yet
I notice this, each year I live:
I always like the gifts I get,
But how I love the gifts I give!

. . . Carolyn Wells

• • • •

and as Tiny Tim observed:

And as Tiny Tim observed, in that story by Charles Dickens that has become one of radio's most popular readings at Christmastime, "God bless us, every one!"

. . . or, to sum it all up:

MERRY CHRISTMAS!

EDDINGTON METAL SPECIALTY COMPANY
1050 Czarnecki Street, Eddington, Pa.

pump. But with the pump set located near the tank and the reservoir near the equipment to be supplied, oil can be raised as high as 200 ft., and in addition can be pumped for horizontal distances that are prohibitive for suction lines.

The big idea is that a suction line lift of 20 ft. is about the maximum for an excellent pump handling light fuel-oil, and at that is troublesome on many actual installations; whereas there's no trick to using pressure, given at the output side of a suitable pump set, to lift oil up to 200 ft. above the level of the pump.

Dealers write in to ask where to obtain equipment to use this idea. Many local supply houses handling oilburner specialties seem to know little about such equipment.

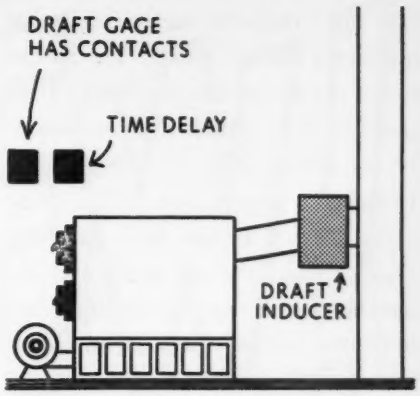
One of the preceding paragraphs was taken almost word-for-word from the catalogue of Preferred Utilities Manufacturing Corp., 1860 Broadway, New York 23, N. Y. That's one source for such pump-up equipment and for many other specialties.

Draft Inducer Saves Oil

On a job having no chimney draft you can save tremendous amounts of oil by using in a rectangular cast-iron boiler both the refractory downdraft wall and the flue travel heat rake baffles, which were described in recent articles in FUELOIL & OIL HEAT. You can, that is, if you install a draft inducer to provide unusually high and dependable smokehood draft for the boiler.

Thus where the chimney draft is so poor as to prohibit the use of baffles, you can thank the draft inducer and install baffling so effective as to reduce oil consumption by perhaps 50%.

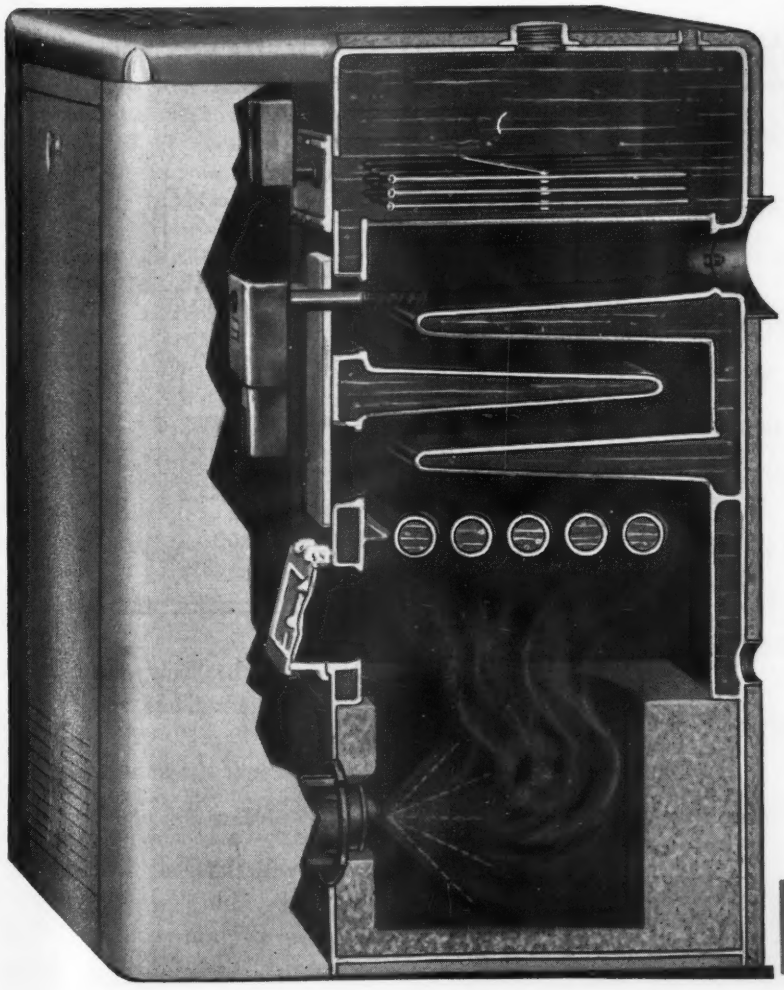
We planned an installation of this type for a dealer recently (see the accompanying diagram) and included controls to stop the burner if the draft inducer blower stops for any reason and the over-fire draft therefore fails to be above minus .02". A draft gage was installed to report over-fire draft. This gage has a switch which is closed when the over-fire draft drops below minus .02". This switch is connected



to a time-delay arrangement, obtained from an old oilburner control panel, which is hooked up to stop the burner if for any reason the over-fire draft fails to be minus .02" for more than one minute. Wired to the burner motor circuit, the entire arrangement is effective, of course, only while the burner motor and induced-draft-blower motor should be running.

The burner has a four-second oil-delay valve, for permitting both the burner motor and induced draft motor to come up to speed before the 18 gph oil flame is turned on.

The cycle is, then: The burner con-



Steel HEATING UNIT

5-Year Guarantee Against Leaks

Boilers and boiler-burner units engineered for dependability

"A Proven Success!"

Dealers! Write for information, data, and price sheets.

We have a few exclusive territory franchises available. Wire or write for full details.

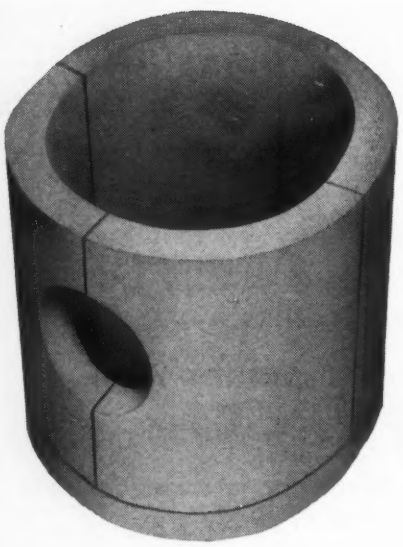
Magic-HEAT

Licensed Under U.S. Patent

A PRODUCT OF
MARIETTA METAL PRODUCTS CORP.
MARIETTA, PENNA.

trol panel turns on the burner motor and draft inducer motor. The burner motor obtains its electric current from the time delay panel. Almost instantly, the firebox draft becomes negative to a degree greater than .02", and the contacts open in the draft gage. In four seconds, the oil starts and the flame lights. If the over-fire draft fails to become properly negative to the extent of .02" when the burner starts, in 60 seconds the time delay arrangement hooked to the draft gage will shut off the burner motor in a way that keeps the burner off; a re-set button must be pressed to start the burner motor again. Or if the over-fire draft stays below .02" (negative) draft for 60 seconds during normal operation, the burner motor will be stopped in the same way. There's time for the induced draft blower to develop the proper over-fire draft when the burner starts. Momentary fluctuations in draft will not stop the burner, because the 60-second time delay arrangement is used.

Do Your PRESENT PRECAST CHAMBERS Give You ALL these Advantages?



1. Low initial cost.
2. Low installation cost — only 5 pieces to assemble.
3. K-factor equal to insulating brick.
4. Excellent performance with either high or low pressure burners.
5. Scientifically packed to prevent breakage.

. . . if the answer is NO -- contact us NOW!

KOLB REFRACTORIES COMPANY Meadow & Jackson Sts. Philadelphia, Penna.

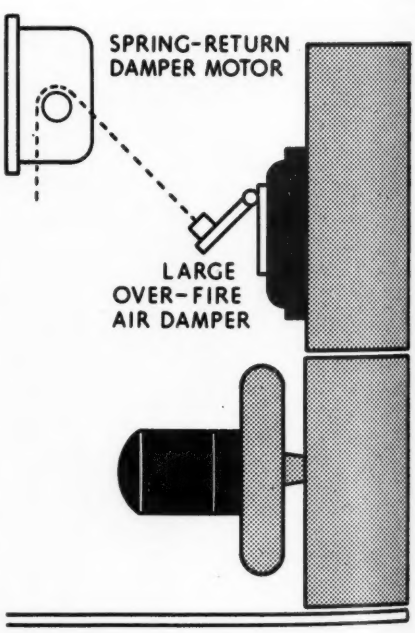
KolbKast Insulated Chambers

Over-Fire Air Helps Start

Called in for the first time to service this horizontal rotary cup burner, which was more than ten years old, a certain service man learned that the owner always kept the doors of the 200 horsepower boiler halfway open.

The reason for this, it developed, was that with the firing doors tight closed the oil flame blew to the back of the firebox after the ignition went off. As the owner explained, the doors of this boiler always had to be kept open. Otherwise the flame did not burn properly.

Determined to put an end to the terrific waste of fueloil that came of keeping the firing doors open, the service man tried different air and oil adjustments, prolonging the ignition period, varying the over-fire draft, and putting a few firebrick on the firebox floor to influence the way the secondary air went towards the flame. None of his tricks worked. However, he did find out that at the end of the exceptionally long ignition period which he had provided, the firing doors could be closed and the flame would continue burning properly without blowing to the back of the firebox.



Determined to gain at once the fuel economy that would come of running the burner with the firing doors closed, he hit on the idea shown in the accompanying diagram. He had the owner install on one of the firing doors

BASIC TEST TOOLS

FOR PROFITABLE SALES AND SERVICE

Combustion testing will pay you big dividends in gaining you competitive leadership and neighborhood recognition of your competence as a heating expert. The combustion-testing kit shown above contains precision-made, quality instruments with which you can make fullest use of your know-how in making a fuel conservation survey, adjusting any make and type of oil burner for clean, trouble-free and economical operation, or running an efficiency test which will convince even the most skeptical customer on the need for replacement or modernization.

The FYRITE Utility Kit contains instruments for measuring not only CO_2, stack temperature and draft, but smoke in the flue as well. The inclusion of the smoke-measuring instrument is a forward step of significant importance to alert heating dealers and service men. Checking the flue gas for both CO_2 and smoke makes possible to adjust the burner with speed and ease for highest possible combustion efficiency, as well as for clean burning of the fuel resulting in heating plant performance that satisfies customers and safeguards against costly service requirements.

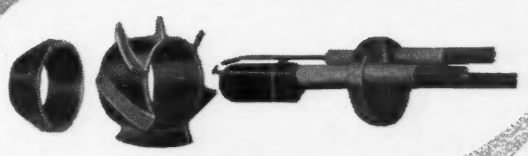
•

The FYRITE Utility Kit shown above is part of the complete line of Bacharach Service Instruments for the Heating Trade which, in addition to Combustion Testing Kits, includes Temperature Recorders, Grille Velocity Indicators, Pyschrometers, and specialized oil-burner servicing equipment. Your wholesaler will gladly supply any of these instruments.

BACHARACH Industrial Instrument Company
7000 Bennett Street • • Pittsburgh 8, Pa.

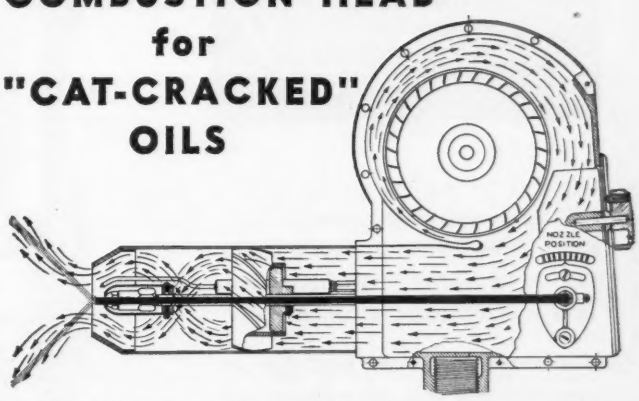
NEW!

REALLY SIMPLIFIED

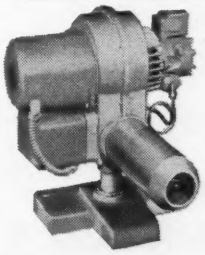


Nu-Way

COMBUSTION HEAD for "CAT-CRACKED" OILS



Simplicity of design and construction . . . only three parts . . . is the main feature of the NEW Combustion Head, vital part on all Nu-Way Model CO Oil Burners. This NEW Combustion Head used with "cat-cracked" oils provides easier ignition and cleaner burning of oil at exceptionally high efficiencies without complicated parts. Easily adjustable, Nu-Way's Combustion Head is capable of performing as fine a job as any on the market. This Combustion Head is the result of over three years research by Nu-Way engineers. Write for complete details!



THE NU-WAY CORPORATION
ROCK ISLAND, ILLINOIS
Sold Through Jobbers and Distributors
Also Special Applications for Furnace and Boiler Manufacturers

"Automatic Oil Heat Exclusively Since 1921"

the large over-fire air damper which the drawing shows. Actually this is a cast-iron door and frame, made for the ash-pit of a big coal boiler and obtained at a supply house.

The service man rigged up a spring-return damper motor, which he had on hand in his shop, to open this over-fire air damper when the burner starts.

The damper motor is wired in parallel with the gas-electric ignition system of the oilburner. When the burner motor starts, the over-fire air damper starts to open. It moves slowly, but it has plenty of time because the burner has an oil delay of 15 seconds. Thus it is almost wide open by the time the burner's oil valve opens. When the ignition is turned off after the burner has been running three or four minutes, the over-fire air damper starts to close.

The arrangement is an expedient that will be used for a year or two to save oil by upping the CO_2 from the previous 4% to the present 10½%, the service man points out. After that, when a good firebox is installed, this tricky damper should not be needed. The new firebox, which the owner has agreed to install in a year or two, will have special design features to retain the flame during a cold start, even though the boiler is hard-fired and has combustion space proportions that cause the flame to be unusually long and, as the service man puts it, "fast" in a way that tends to drive it to the rear wall of the firebox.

❖

Jack Wilson, who has been in the engineering department of Lennox Furnace Co., Marshalltown, Ia., for the past four years, died recently. His connection with the industry dates back to 1924 when he performed installation and service work for the Oil Burning Engineering Co. in Detroit. He later joined the Silent Automatic Co. in service work and then in its laboratory. In 1932 he transferred to the Timken Silent Automatic Division as laboratory manager and continued in that capacity until 1947.

William R. Boyd, III, who had been serving on the Munitions Board as a consultant on petroleum facilities, has been detailed from the Board to become director of Petroleum Administration for Defense's Facility Security Div. Another appointment recently announced was the naming of *Lawrence W. Lee,* vice-president of the Husky Oil Co., Cody, Wyo., as director of PAD's newly-established Distribution and Marketing Div.

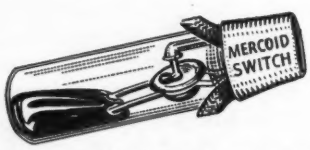
Gerry E. Morse has been elected vice-president of Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., in charge of industrial relations. He had been with Sylvania Electric Products since 1933 and for the past three years had been its director of employee relations. Other recent Honeywell personnel changes saw *Tom Reed,* who had been engaged in the company's oilburner controls sales, assigned to the Hartford, Conn., office, promoted to the position of account executive in the oil division. Bert Engrstrom, who had been assigned to the Cleveland office in sales work, has been named assistant sales manager of the wholesale division, in charge of the territory west of the Mississippi River.

MERCOID - GIVES YOU THAT ADDED PROTECTION

WARM AIR CONTROLS

Like the proverbial expression, "A Chain Is No Stronger Than Its Weakest Link," likewise, "A Control Is No Better Than Its Electrical Contacting Mechanism."

Where open contacts are used, they are exposed to dust, dirt and corrosion, and arc in the open, causing pitting and sticking of the contacting surfaces.



The Mercury Switch used exclusively in all Mercoid Controls is protected from the above handicaps, and operates indefinitely without any deterioration, thereby assuring that added safety and better performance.

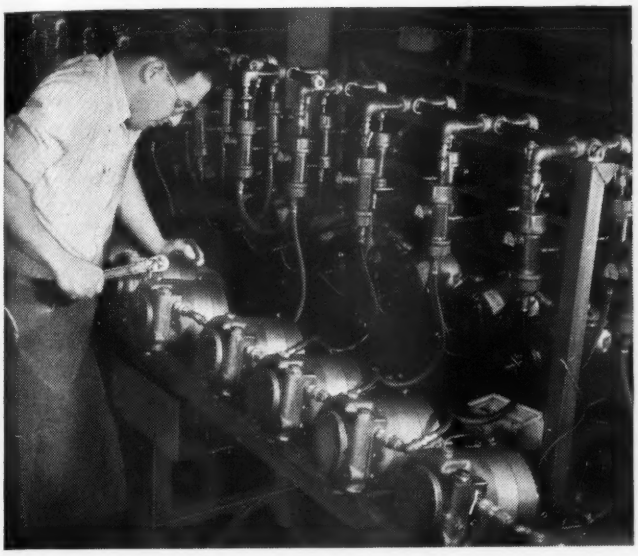
The Mercury Switch is just one among other very desirable features that make Mercoid Controls the pick of the man who knows the difference.

WRITE FOR CATALOG 700-A. PLEASE MENTION THIS PUBLICATION

THE MERCOID CORPORATION
4201 BELMONT AVE. CHICAGO 41, ILL.

For customer satisfaction, sell Delco-Heat

Delco-Heat's rigid testing and inspection guarantee products of highest quality and dependability.



Setting a number of *Rotopower* Units up for an actual 8 hour run-in test. Here, the oil pump operation must meet its most rigid test. All moving parts of the Delco-Heat "Rotopower" Burner are located in this compact *Rotopower* Unit.

Adjusting pressure regulating valve of *Rotopower* Unit to assure proper pressure of oil at nozzle, and checking operation of motors under low-voltage conditions. A component part of every *Rotopower* Unit is the exclusive Delco Appliance Rigidframe Motor.

Today, more than ever, the home owner demands the finest in automatic heat. Nothing less than a unit that gives completely economical and trouble-free service will satisfy him.

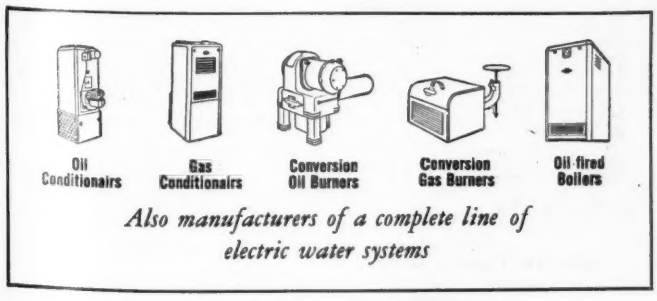
When you sell Delco-Heat, you can be sure you're giving your customer the best. A big reason for this is that the high production standards maintained by Delco insure the finest quality products available anywhere. At the lowest possible prices, too—because Delco's constant checking and testing have maintained quality without sacrificing the economy of mass production techniques.

Of course, there are other reasons why you'll find Delco an outstanding company to work with. For example, Delco Appliance manufactures all of the parts that go into the Rotopower Oil Burner—which means a better integrated unit, with each individual part designed for its specific function.

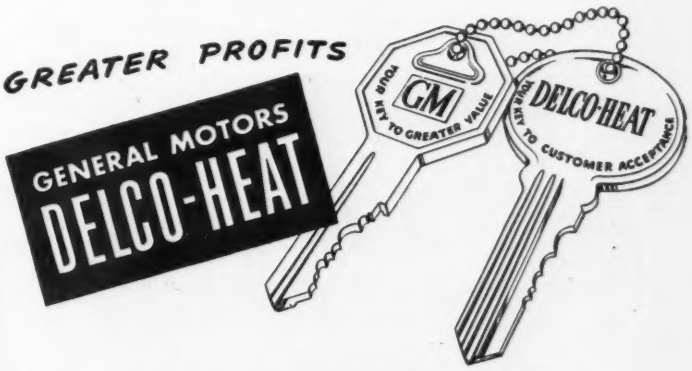
It's important, also, to remember that as a Delco-Heat Retail Distributor, you'll be a part of the great "General Motors family." It's assurance that you will always be backed by the best engineering, the newest improvements, the most aggressive types of sales assistance, and the fairest of business policies.

All of these factors put Delco-Heat Retail Distributors at the top of their field, with the most profitable line in the home heating business. If you would like more information about a Delco-Heat franchise, write to Dept. FO-32, Delco Appliance Division, General Motors Corp., Rochester 1, N. Y.

YOUR KEYS TO GREATER PROFITS



Also manufacturers of a complete line of electric water systems



DELCO APPLIANCE DIVISION
General Motors Corporation • Rochester 1, New York

COMMERCIAL & INDUSTRIAL oilburning

Design of the industrial Installation

Part V—Various Types of watertube Boilers

by
Kalman Steiner*

TO DATE, this series has discussed methods of handling cast-iron boilers and the five standardized forms of firetube boiler. There remains to consider a group designated as watertube boilers. This group is the most diverse of all, in arrangement or style of construction, and in range of capacity. Watertube boilers start in types designed for low-pressure heating and reach to the largest of power plant sizes in pressures exceeding 1600 psi. Of necessity, this article can discuss only watertube boilers in the lower size range.

A striking difference between firetube and watertube boilers is the division of the boiler into paths of gas travel—that is, circuits of flow for the combustion gases from burner tip to breeching outlet. The construction of a *firetube* boiler creates permanent passes or directions of gas travel, with turn boxes or other inherent structural features serving to change the direction of flow from one pass to the next. But a *watertube* boiler has no such natural or permanent paths of flow that result from fundamental boiler construction —the paths of flow along or across the tubes are created by baffles, and alteration of the baffle layout will result in changes in gas travel without in any way affecting the tubes or boiler construction.

*C. *Hoffberger Co., Baltimore, Md.*

Firebox Type watertube Boilers

One make of watertube boiler is built in small sizes (up to one about 200 hp) in both low and high pressure. It has horizontally inclined straight tubes extending from front header to rear header. The headers extend downward below the lowest row of tubes, and connect with each other by means of a double (inside and outside) set of side sheets to form a waterleg firebox. The height from mudring to lowest row of tubes, however, is less than the height from mudring to crown sheet in a comparable firetube boiler, which means that most of the combustion space must be formed by the boiler base. In order to obtain maximum width of firebox, this boiler should be supported by gussetts attached to the boiler side sheets, leaving the mudring clear to the base. This permits the inside firebox width to be some 7 in. wider than if the boiler rested on the mudring—a valuable gain in an important dimension, that can mean much in avoiding flame impingement on the firebox walls.

It will be found upon calculating the required combustion volume to develop 200 per cent of rating (which the boiler is easily capable of on a 10 sq. ft. per hp basis) that the base will have to be very high, and that the resultant firebox will be narrow and high. A method of correcting this condition is illustrated in Fig. 1. The gussetts welded to the side sheets rest on steel beams which in turn are supported by front and rear columns, independently of the masonry base. The masonry side walls can then be farther apart than the side walls of the boiler itself, and the gap between closed by means of an inclined connecting arch.

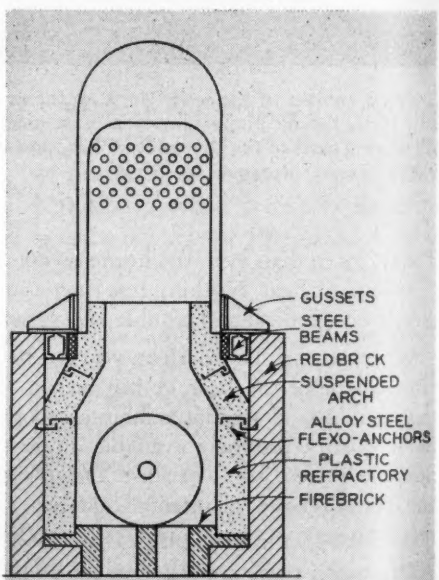
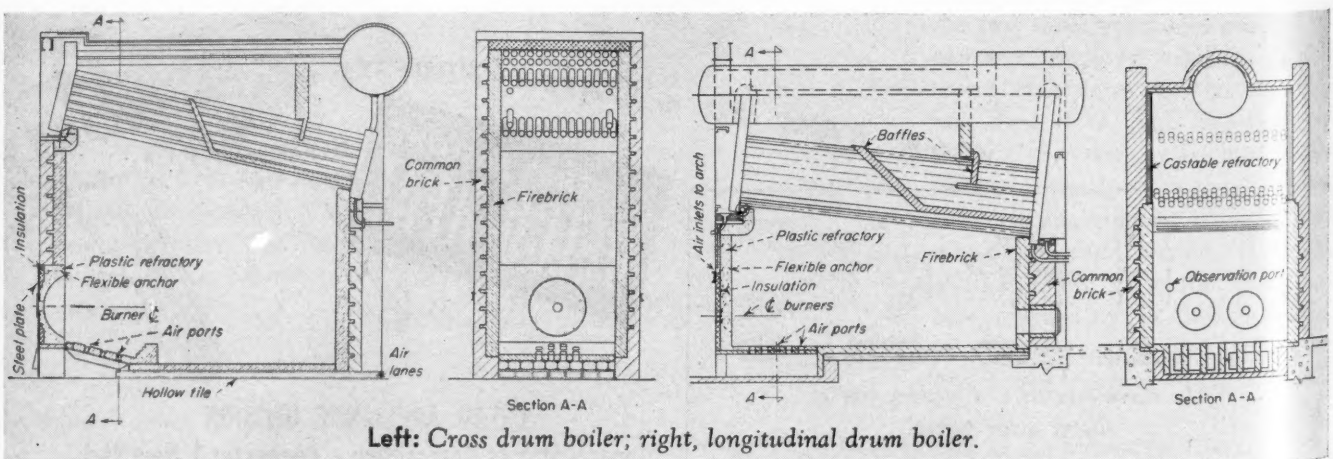


Fig. 1. *Watertube boiler with water leg.*



Left: *Cross drum boiler; right, longitudinal drum boiler.*

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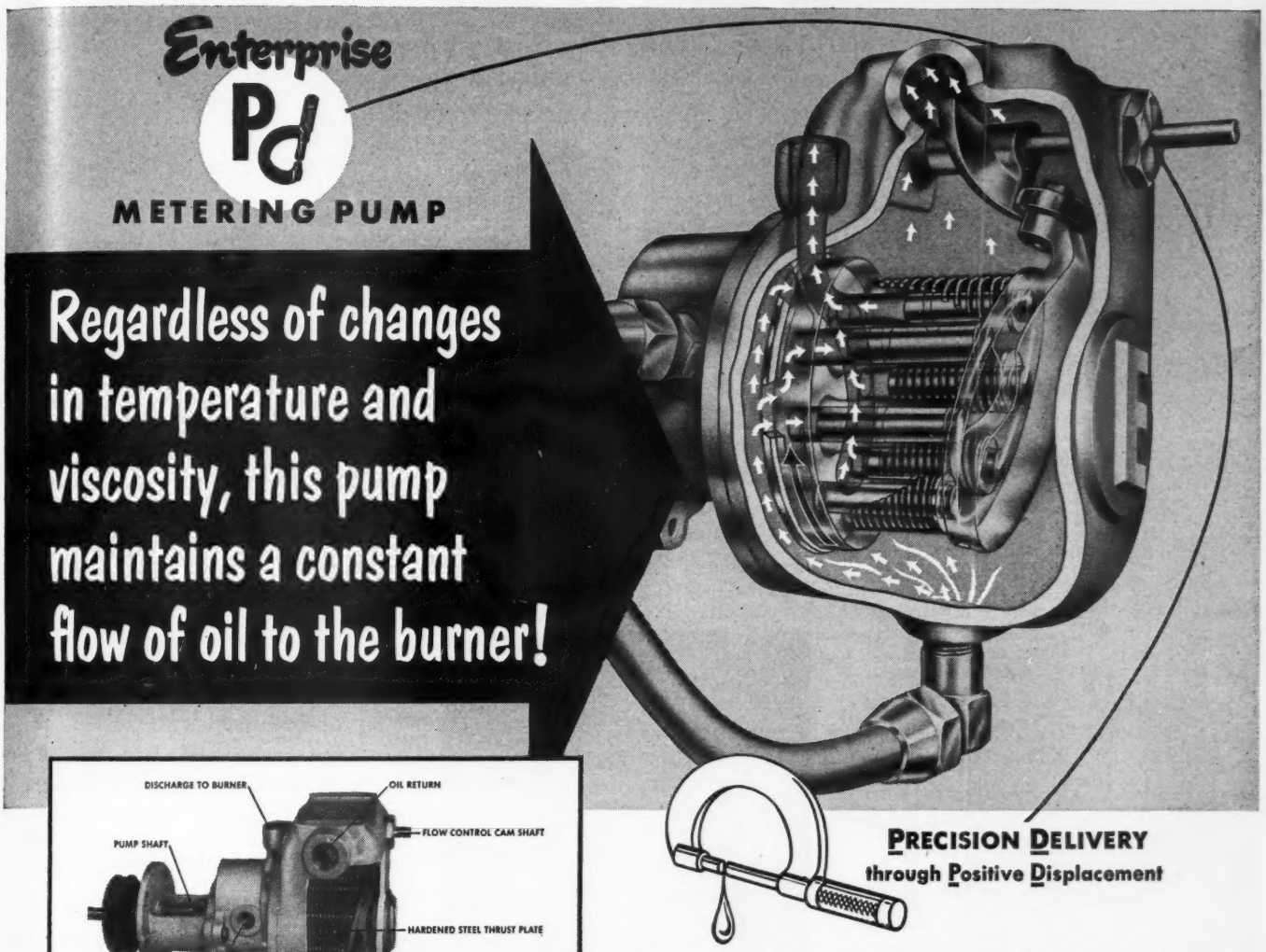
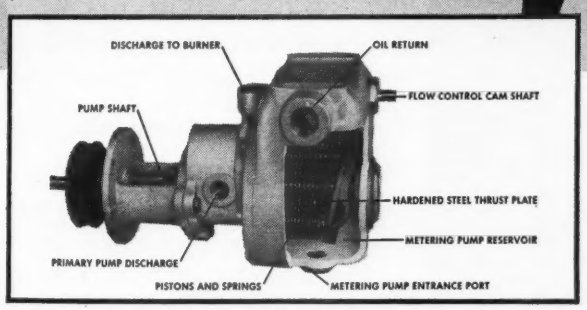
Enterprise P·D METERING PUMP

Regardless of changes in temperature and viscosity, this pump maintains a constant flow of oil to the burner!



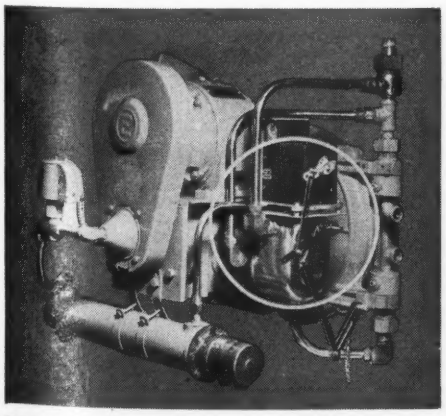


Dual-pump construction simplifies servicing requirements. No ports to clog, no adjustments to make after initial settings, no relief valves, compensating valves or pressure gauges.

PRECISION DELIVERY
through Positive Displacement

The **P·D** Metering Pump provides *exact* delivery of the *proper* quantity of oil at a *constant* rate—regardless of changes in temperature and viscosity. The result is unmatched oil burner efficiency and economy. Here are some of the other advantages you get with the Enterprise **P·D** Pump:

- **Entire unit submerged in oil bath keeps friction to a minimum.**
- **Reservoir is of ample capacity to assure self priming of pumping unit.**
- **Cleaner, more efficient combustion results in sizeable fuel savings.**
- **Delivery rate to the burner is controlled by pump setting.**
- **Minimum oil pressure, insuring absolute safety to the system.**
- **Pump automatically controls oil flow—no adjustment required.**
- **Any air entering the system is by-passed through return line.**



Efficiently and accurately meters various grades of fuel, hot or cold, clean or dirty, in summer or winter. The **P·D** Pump is easily installed on Enterprise pump-type burners. Built in sizes to handle up to 100 G.P.H.

25th Anniversary 1951

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There's no more efficient unit on the market today. Write for Bulletin No. 51 for the complete story on the Enterprise P·D Metering Pump.

Enterprise DEPENDABLE Oil Burners

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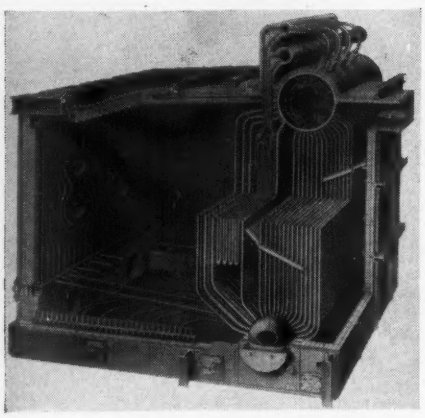
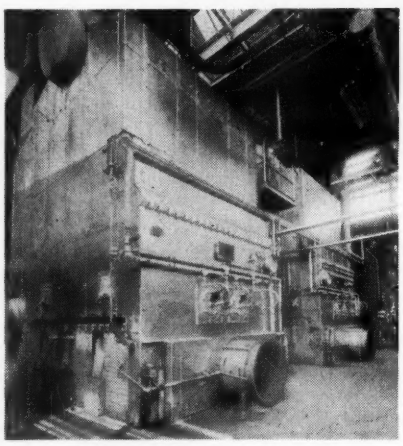


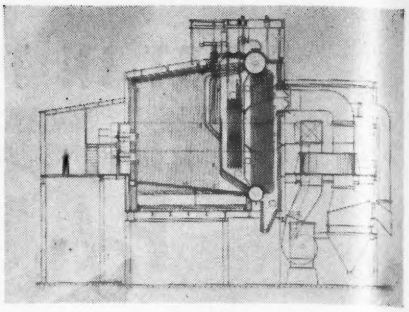
Two-drum *bent-tube boiler with water-wall furnace.*

The first forms of watertube boilers of large capacity were made with straight tubes that sloped downward from the horizontal, connecting at front and rear into headers that might be perpendicular to the tubes and therefore inclined from the vertical, or inclined to the tubes to permit their being vertical. The headers in turn connected into a drum. In the cross drum boiler, the drum was set crossways to the tubes and parallel to the boiler front, and was usually located over the rear or lower header but sometimes was somewhat forward of that location. The longitudinal drum boiler had its drum running from front to rear, on the boiler center line. Sometimes the drum was given the same inclination as the tubes, and in other cases the drum would be horizontal. In capacity range, cross drum boilers were built in sizes from 120 to 1200 b.hp.; the longitudinal drum sizes ranging from 75 to 800. These sizes are based on 10 sq. ft. to the hp. Such boilers of course are capable of developing at least 200 per cent of nominal rating, and more, if the firebox design complies with the output desired.

The early types of watertube boilers were always set with full refractory walls, exposing large areas of firebrick surface to the radiant heat of the flame. Because of the small amount of black, or water-backed surface presented by the boiler to the flame, firebox temperatures run high, and it is well to design for a heat release rate not exceeding 24,000 Btu per cu. ft. per hr. An extremely important factor in the boiler setting is the method of baffling. Many coalfired settings employed horizontal baffles to form three gas passes through the boiler. But these same coal-burning furnaces also required bridge walls to support the rear end of the grates or stoker retort. With oil, the bridge wall should be removed, allowing the flame to sweep unimpeded the full length of the boiler setting, and then returning along the horizontal baffle about half way. The horizontal baffle should then change to vertical or forward inclination, making three vertical passes instead of three horizontal passes. Or, if circumstances permit, the boiler can be rear fired.



Forced-draft *watertube boiler with pressure atomizing oilburners.*

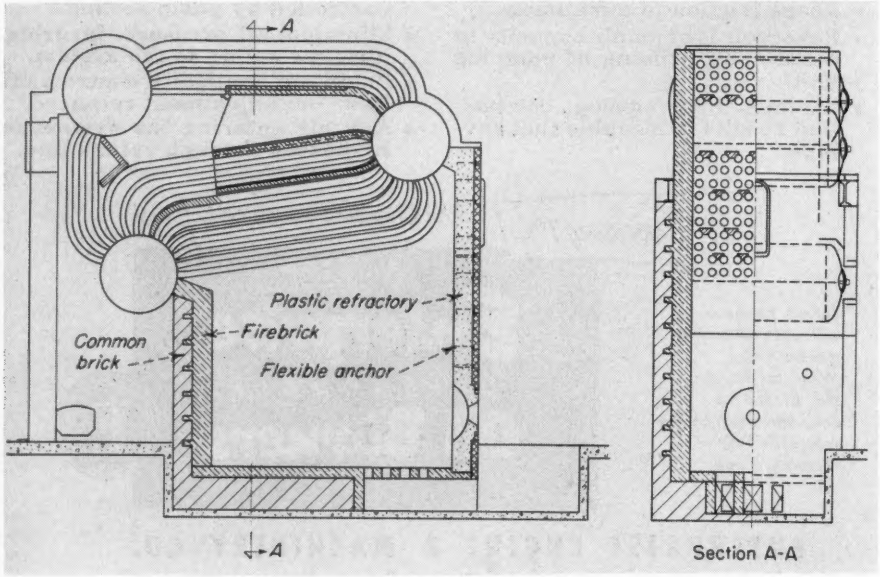


Two-drum *boiler with water-wall furnace, pressure atomizing burners under mechanical draft.*

Bent tube Boilers

Present day watertube boilers are of multiple drum construction, involving the use of bent tubes. The number of drums varies from four, in the earliest styles, through three, a very popular style, down to two, the most recently developed. Most boilers today also incorporate water walls, meaning water tubes in a single row placed against the furnace walls, and sometimes also the furnace front and floor. Usually the tubes are partially covered with refractory, making the structure an alternating series of vertical strips of refractory and vertical water backed surface. Furnace temperatures are not as high as in straight refractory construction, and so higher rates of heat release are permissible. In capacity, these boilers range up to the largest power plant size, 1,000,000 lbs. steam per hr. (34.5 lb. steam at 212° equal one b. hp.).

Multidrum construction assumes such a diverse variety of forms and arrangements that it would be hopeless to try to discuss them in detail in this short treatment of the subject. New



Three-drum *bent-tube boiler with staggered baffles.*

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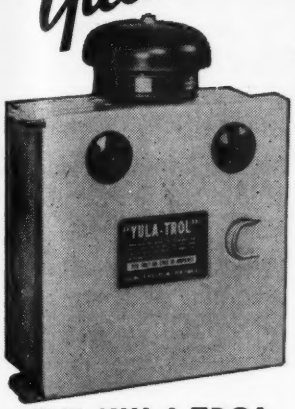
THE Yulatrol

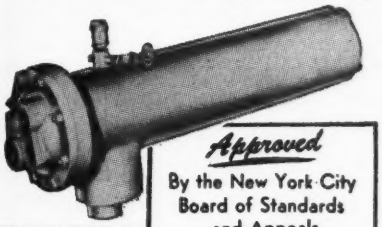
A COMPLETE *Line* of FUEL OIL *Pre-Heaters* FOR USE WITH NO. 6 (BUNKER "C") *Fuel Oil*



THE *YULA-TROL* RELAY BOX with LIGHTS, ALARM and DETECTOR.

Yula preheaters for fuel oil are designed for greatest efficiency and low cost. Every unit is pre-tested at the factory to insure accurate performance on installation. Yula makes a type for EVERY need!

The YULA-TROL Fuel Oil Detector and the YULA "YT" "U" Tube Fuel Oil Heater, containing an oil de-entrainment chamber and a specially designed probe, is approved by the New York City Board of Standards and Appeals as a complete unit. It also functions as a low water cut-off. The safety device that almost talks! If an oil leak occurs, it shuts off the burner, rings the gong, turns on the red light. This occurs in just 45 seconds after an oil break. It's the ONLY device that gives super safety and top efficiency! Every feature you need for ECONOMICAL oil heating!



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Finest Commercial and A.S.M.E. design—top oil heating.

Yula STRAIGHT TUBE Fuel Oil Heaters are designed for use where steam is the heating medium. They have perfect right angle and counter current flow.

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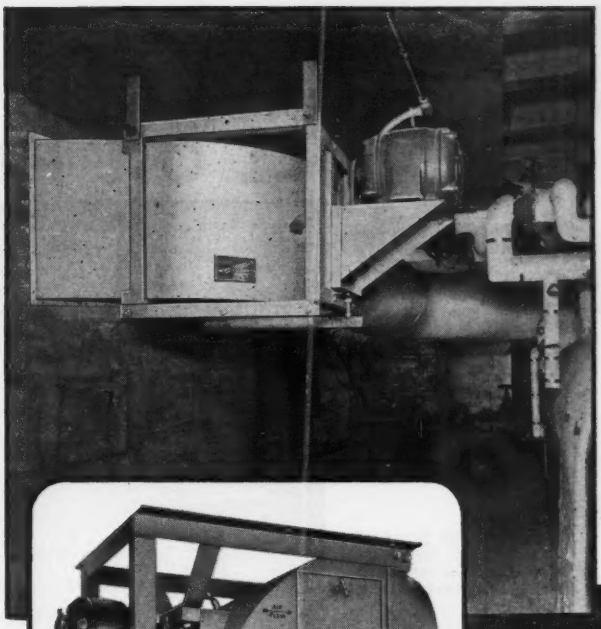


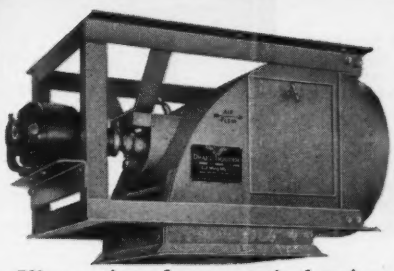
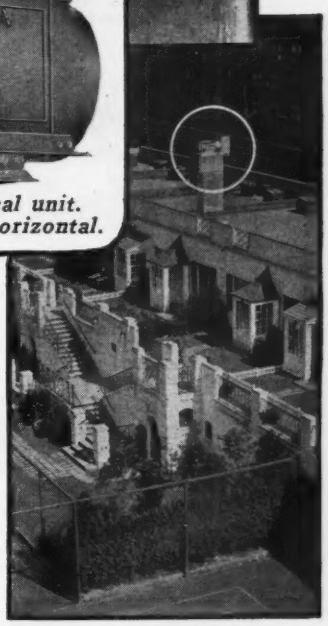


Illustration shows vertical unit. Installation above shows horizontal.



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If it does, you will be agreeably surprised to see what a Wing Draft Inducer can do in furnishing positive uniform adequate draft without the need for tall, unsightly, expensive stacks. Unlike variable chimney draft, the Wing Draft Inducer permits operation at high efficiencies in any weather. It cuts fuel costs giving higher CO_2's. Smoking is greatly reduced or completely eliminated. The capacity of your heating plant is increased. Write for bulletin I-51.

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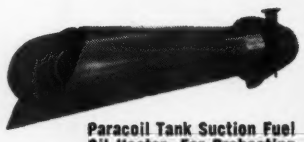
SINCE 1915 **Paracoil**
FUEL OIL HEATERS



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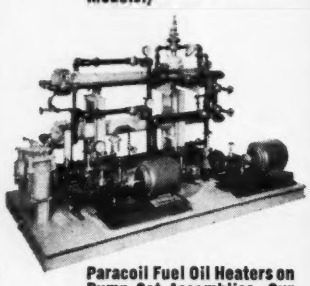

Paracoil Fuel Oil Heaters on Pump Set Assemblies. Our Tubular and Straight Tube Types are used by all leading pump set fabricators.

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. . . have been the considered choice of the nation's leading oil burner installation contractors, burner manufacturers, and package boiler fabricators . . . because

- PARACOIL has been part and parcel of the oil burner industry from its inception – and is intimately acquainted with its needs!
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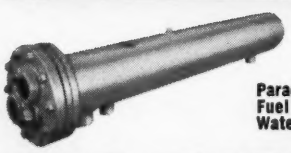
- PARACOIL prices are right. Mass production of standardized models is the answer! Heavy factory stocks permit quick delivery on catalogued models and sizes.

Your Heavy Oil Installations Deserve the Best Equipment . . . Put a Paracoil Fuel Oil Heater on your next job—and see the improvement!

Write for Descriptive Bulletins and Prices on your letterhead!

AGENCIES IN PRINCIPAL CITIES



Paracoil "U" Tube Type Fuel Oil Heater. For Below Water Line Service.

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CORPORATION
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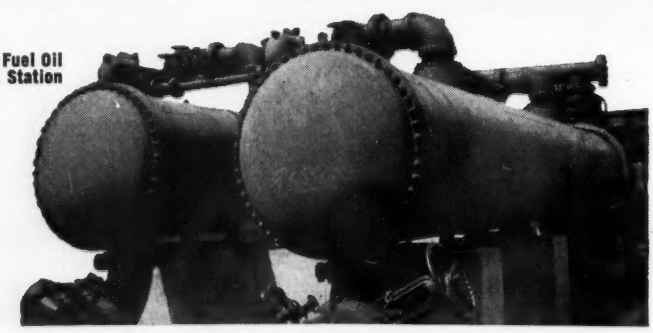
Paracoil Line Type Fuel Oil Heater. For Bulk Station Operation.



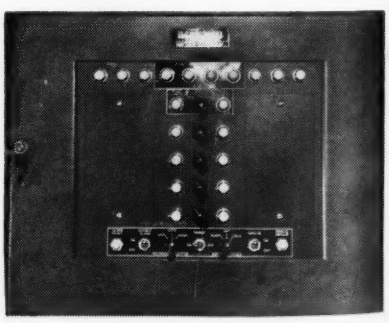
installations are usually completely engineered by the boiler maker, who often furnishes the burners with the boiler and erects the complete plant in the field. In those cases where coal burning boilers are to be converted to oil, the burner dealer should first obtain, either from the user or the boiler maker, a set of prints showing the boiler construction, setting details, baffle arrangements, and all other pertinent information. From these original prints, an oilburning conversion should be laid out on the drawing board before any attempt is made to modify the original setting.

❖

Brown electronic System monitors 270 Temperatures

AN ELECTRONIC scanning system, designed to automatically and continuously monitor up to 270 separate processing temperature points has been developed by Brown Instruments. The system records only those temperatures which deviate beyond a preset limit and includes an audible alarm that permits correction of excess temperatures

The new system is applicable for steam generating stations and has wide



application in the chemical, petroleum and processing industries. The system consists of these assemblies: one 12-record, 4½ second, strip chart Electronic recorder with synchro-balance printing; a rectifier unit for operating stepping switches and control circuits; a control unit for scanning system; required number of switch units.

Made by: Brown Instruments Div., Minneapolis-Honeywell Regulator Co., Wayne & Windrim Aves., Philadelphia 44, Pa.

Industrial Committee collects burner Figures

THE COMMITTEE on Statistics of the Commercial-Industrial Committee of the Oil-Heat Institute of America, Inc., New York 16, N. Y., convened at the last meeting of the group and agreed on a general program of statistical information that was needed.

The committee decided to collect information on manufacturer's shipments of horizontal rotary cup burners, 2½ gph and under, over 2½ to 8, over 8 to 30, over 30 to 100 and 100 gph; high pressure and low pressure gun burners, self-powered, 5 to 30 and over 30 gph; mechanical and steam atomizing equipped with air registers, 30 gph and over.

In the program worked out to collect these data blank reporting forms were submitted to all known manufacturers, with a code symbol assigned to each manufacturer to avoid the need for his name to appear on the reporting form. Key to the code is known only to authorized compilers.

Total figures arrived at from the reports will be sent to those companies who have cooperated, with a list of the manufacturers to whom the forms were sent accompanying the report.

The first such report will be issued on October burner shipments.

Preferred Booklet on protective Coatings

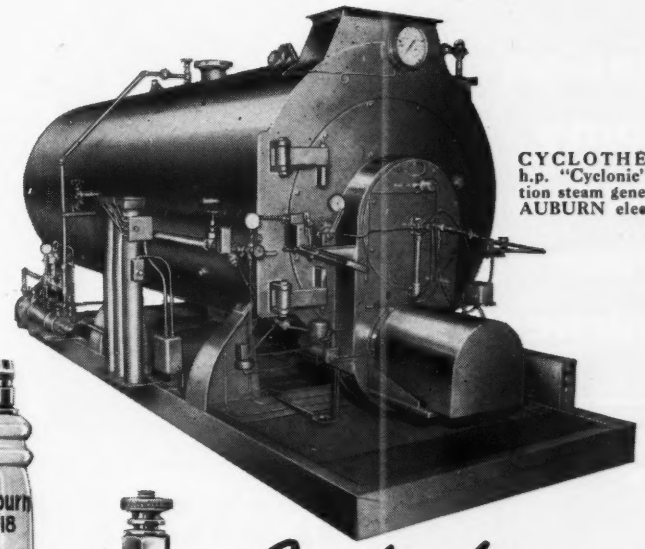
A SCIENTIFIC BULLETIN is being offered by Preferred Utilities Mfg. Corp., New York 26, N. Y., on methods of lengthening the life of refractories and metals. The bulletin points out that one of the most frequent causes of disintegration of furnace refractories is the penetration of corrosive gases of combustion and molten slag. The action created by combustion tends to cause metal oxidation or rust.

Refractories and metal can be protected from these destructive elements and extreme temperatures by painting them with compounds, such as Preferred White Hot or Pyro-chrome, which the bulletin describes. These coatings expand and contract like the materials to which they are applied, will not peel, blister, bloat or check even under rapid temperature changes.

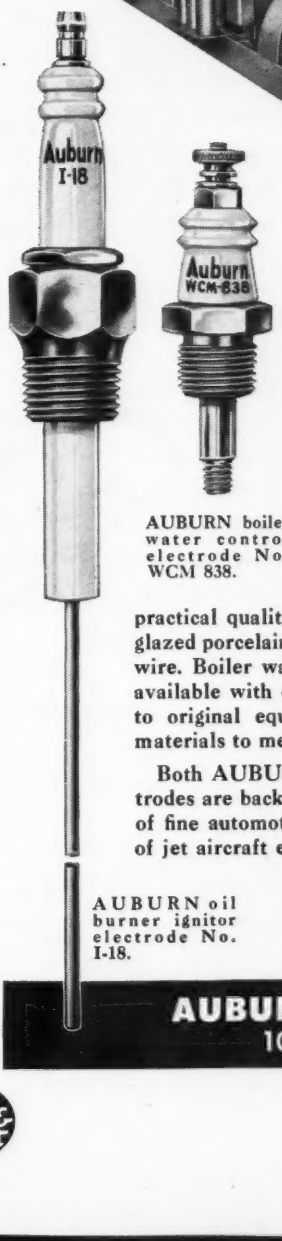
White Hot withstands temperatures up to 2840° F., Pyro-chrome up to 4000° F., and both reflect an appreciable amount of heat from the surfaces to which they are applied.

Lookout vertical Boilers designed for Oilfiring

LOOKOUT vertical boilers with full length tubes arranged for firing with oil are composed of an outer shell, a smaller and shorter inner shell in the lower portion of the outer shell, a head in the upper end of each shell and tubes joining and extending through each head. The inner shell forms the upper portion of the furnace in an oilfired installation, with a large opening extending through the shells into the furnace, formed by flanging the outer and inner opening. Water in the outer shell surrounds the inner shell and the lower portion of the tubes. Combustion heat is imparted through the inner shell, lower head and tubes to the surrounding



CYCLOTHERM 200 h.p. "Cyclonic" combustion steam generator with AUBURN electrodes.



AUBURN boiler water control electrode No. WCM 838.

AUBURN oil burner ignitor electrode No. I-18.

Cyclotherm chooses

Auburn ELECTRODES

Latest of major manufacturers of oil burners and burner-boiler units to shift to AUBURN electrodes is Cyclotherm Corp., Oswego, N. Y.

AUBURN electrodes are made to highest practical quality standards. Ignitor electrodes have carbon-resistant glazed porcelain insulators and nickel alloy corrosion-resistant center wire. Boiler water control electrodes have mica insulation and are available with or without silicone impregnation. Both are available to original equipment manufacturers only, in any size, style or materials to meet individual requirements, and for early delivery.

Both AUBURN oil burner ignitor and boiler water control electrodes are backed by our record of 41 years' continuous manufacture of fine automotive spark plugs and as one of the largest producers of jet aircraft engine ignitors.

For catalog of standard types, or information about ignitor or boiler water control electrodes made to meet your needs, write:

AUBURN SPARK PLUG CO., INC.
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RAYFIELD OIL BURNERS

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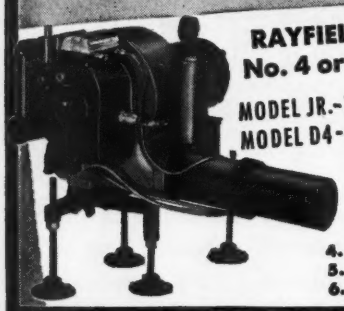

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4. All Electric Operation
5. Pays for itself from savings
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PATENTED COMBUSTION HEAD OIL BURNERS

for CATALYTIC OILS TO #3 GRADE
2 MODELS-1.00 to 3.00 GALS./HR. CAPACITY

1. Amazing Economy 12 to 15% CO_2
2. Clean boilers with perfected combustion
3. Burns Catalytic oils easily
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Design economy into your burners

Standard & High Pressure SEPARATORS

Maintenance and replacements costs are 2 important items to oil burner purchasers. With Kraissl separators, you can design faster, easier maintenance into your burner—and eliminate filter replacement costs entirely. Installation on the exterior of your burner gives instant, easy access—without dismantling. And the cleaning of the removable filter baskets restores original efficiency—thus eliminating the normally expensive replacement costs. Complete range of sizes—from 1¼" to 6"; pressures to 500 psi; practically any degree of separation.

Ask for Bulletin A-1214.

If you have any special problems—or need more information, please write us fully. You will receive a prompt and detailed reply.

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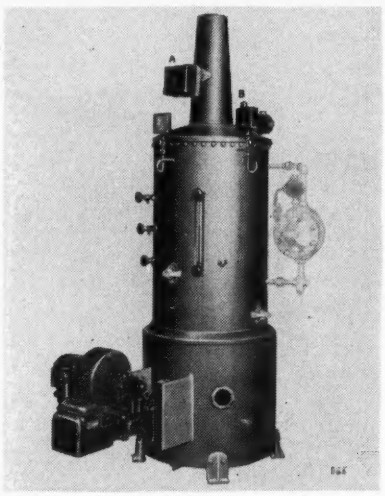


water, producing steam, which is stored in the upper portion of the outer shell. Products of combustion pass from the furnace to the stack through the tubes.

These ASME constructed boilers are designed for a maximum steam working pressure of 100 lbs. psi, tested and made right under a hydrostatic pressure of 150 lbs. psi. Eleven models are available, ranging from 100,000 to 1,674,000 Btu/hr. at the steam outlets, firing rates from 1¼ to 17 gph. A metal base of extra height to accommodate an oilburner is furnished.

Made by: Lookout Boiler & Mfg. Co., Chattanooga, Tenn.

Dravo Bulletin describes direct-fired space Heaters

DRAVO CORPORATION, Pittsburgh, Pa., announces its new Bulletin 526 describing Dravo "Counterflo" direct fired space heaters in a range of gas or oil fired models with outputs from 400,000 to 2,000,000 Btu per hour. Highlighted is a comparison chart showing that steel requirements for the installation of these heaters is substantially less than that of other commonly used systems. In most cases, the bulletin points out, steel needs for heating systems can be reduced 50 to 70 per cent through the use of direct-fired warm air heaters.

"WHEN YOU GETTING YOUR NEW GLASSES, JIMSON?—YOU'RE READING THAT CRACK IN THE WALL AGAIN!"

COURTESY WHEELCO INSTRUMENTS COMPANY

THE SELLING MAN

W. A. Matheson wrote this comprehensive book to help those who are breaking into selling and for the improvement of active salesmen. The practical techniques he suggests have been tested and proven by his own experience with them, presented on the basis that everyone can sell if he'll take the trouble to learn.

(Please send remittance with order) **$5**

HEATING PUBLISHERS, INC.
232 Madison Ave. New York 16, N. Y.

THE ALSTROM

"SAFE GUARD" OIL PREHEATER
- **is completely "fuel-proof!"**
- **really heats oil!**

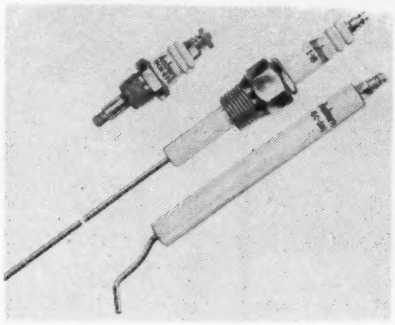
Alstrom Feature: Double Transfer protection without sacrificing heating capacity.

• compact • ruggedly constructed • triple-tested • Visual Indicator, standard on all models

In a full range of sizes

THE ALSTROM CORPORATION
790 East 176 Street • Bronx 60, N. Y.

Auburn Spark Plug Co. announces electrode Line



A COMPLETE LINE of Auburn oilburner ignition electrodes and boiler water and liquid level control electrodes have been announced.

The illustration shows two ignitor electrodes and a water level control electrode. The WCM-838 stainless steel electrode, at the top of the picture, has mica insulation and is available with or without silicone impregnation. Extended probes also can be furnished. The I-18 model, in the center, is a two-piece model for use with high tension voltage systems having an output of 5,000 to 10,000 volts. It incorporates high strength carbon resistant glazed porcelain insulator and a nickel alloy corrosion resistant center wire. The bottom electrode is the GC-501, has high strength sintered aluminum oxide carbon resistant or high strength carbon resistant glazed porcelain insulators and a nickel alloy corrosion resistant tip on removable center wire.

Made by: Auburn Spark Plug Co., Inc., Auburn, N. Y.

PREFERRED Anti-Syphon Valves

PR-194

APPROVED BY
UNDERWRITERS' LABORATORIES, INC.

Permits pumping of oil but closes to prevent syphoning in case of suction line break.

FOR OILS UP TO No. 5
Valves C5 and C10 are available in ⅜" and ½" sizes.

FOR OILS UP TO AND INCLUDING No. 5
Valves B5 and B10 are available in ¾" and 1" sizes. (1" size is built up from ¾" size with fittings.)

FOR OILS UP TO AND INCLUDING No. 6
Valve A is available in 1¼", 1½" and 2" sizes for 5 or 10-foot head pressures.

You can be sure of the best when you order from Preferred, the oldest and the largest manufacturer of anti-syphon valves.

PREFERRED UTILITIES MFG. CORP.
1860 BROADWAY, NEW YORK 23, N.Y.

the capacilog recorder

WHEELCO CAPACILOG
Accurate to ¼ of 1% of scale . . . specify the economical Wheelco Capacilog, for measurement, indication, control and permanent record. Bulletin C2-2 for complete details.

Wheelco instrumentality in action—Wheelco Instruments Company, 868 W. Harrison Street, Chicago 7, Illinois

wheelco *electronic controls*

Manufacturers' Activities

Oil-O-Matic inaugurates new "Key-dealer" Plan

A NEW "KEY-DEALER" PLAN is being tested by the Oil-O-Matic Div., Eureka Williams Corp., Bloomington, Ill., which, if successful, will foreshadow major changes in its merchandising and distribution plan for concentrated population centers. In essence, an outstanding heating equipment merchandiser in a given area will be designated a Key-dealer to function as a wholesale distributor to other dealers in his area, in addition to conducting a large retail business of his own.

The Key-dealer will coordinate the advertising and sales promotion effort of his dealers, will be accountable for proper installations in his area and will be available for service and engineering assistance. The number of dealers to be assigned each Key-dealer will be flexible, but in any case, he will be expected to produce about 50% of the sales quota established for his market.

E. H. Davison, general sales manager of Oil-O-Matic, envisions benefits for all Oil-O-Matic dealers from the close working relationship the plan will establish with a large organization having more service facilities. Additionally, Davison says, the Key-dealer will increase his business and the factory will reap the advantages of a well coordinated dealer-distribution network with increased retail and service facilities and on-the-spot wholesale supervision and warehousing.

"Test case" Key-dealers already are operating in three areas: C. A. Breed Co., West Newton, Mass.; F. C. Haab Co., Inc., Philadelphia and Suburban Fuel Oil Service, Mt. Vernon, N. Y.

Another of Oil-O-Matic's efforts to help off-season sales has been announced. It is a campaign, designed to continue high-speed sales activity during November and December, based on company awarded Series "E" defense bonds to dealers and salesmen over and above regular sales commissions earned from October 22 through December 8. Bonds are awarded under a system, whereby participants earn points for heating units sold.

Fulflo Filters

EVERY DROP OF OIL

is filtered . . . finer and finer, to microscopic clarity in one quick trip through a FULFLO FILTER.

• **TRUE DEPTH FILTRATION** . . . . . See those diamond tunnels? Not a drop of oil can pass a FULFLO FILTER except through these multi-film, tapered tunnels of its HONEYCOMB FILTER TUBE. In one quick trip through the filter every drop encounters many successive fine filtering films of increasing density, ensuring removal of solid impurities down to microscopic size.

• The spaces between filtering films provide storage cells where separated particles can accumulate instead of piling up on the surface of the tube to blind it and block it.

• *Fulflo* is by far the largest selling Oil Burner Filter. It leads in sales because it does a better job! The finest oil, no matter how carefully handled picks up sub-visible impurities that can cause stuck valves, scored pumps, fouled points and clogged nozzles. Leading dealers everywhere have learned that FULFLO stops costly service calls by providing the most positive protection against all troubles arising from oil impurities.

RF4 Honeycomb Filter Tube is stocked by more jobbers and dealers than any other filter re-fill. Fits all four inch Fulflo Filters. Carry a couple of cartons in every service car.

IF YOUR JOBBER CAN'T SUPPLY YOU WRITE OR WIRE US

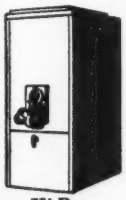
COMMERCIAL FILTERS CORPORATION
Boston 27, Massachusetts

A little more *than two years after the Coleman Co., Wichita, Kan., introduced Blend-Air, the 50,000th unit came off the assembly line. Here, Sheldon Coleman, right, president and general manager, nails a gleaming white crate around the 50,000th unit, while Clarence Coleman, vice-president in charge of production, watches.*

AGAIN in '51

MORE FURNACE MANUFACTURERS THAN EVER BEFORE WILL USE THE KRESNO-STAMM *P.A.G. Ball Flame* BURNER

This year more manufacturers than ever before—at least 59—will use the Kresno-Stamm P.A.G. Ball Flame Burner. For every application they have overwhelmingly accepted the Ball Flame as the best and most versatile unit.



Hi-Boy

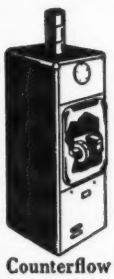
HI-BOY

More manufacturers of Hi-Boy furnaces will use the Ball Flame Burner.

Gravity

GRAVITY

More manufacturers of Gravity furnaces will use the Ball Flame Burner.



Counterflow

COUNTERFLOW

More manufacturers of Counterflow furnaces will use the Ball Flame Burner.

Utility

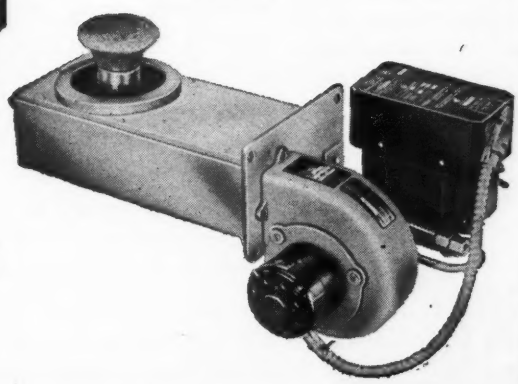
UTILITY

More manufacturers of Utility furnaces will use the Ball Flame Burner.

More manufacturers choose the versatile Kresno-Stamm Ball Flame because

- ✓ It costs less than a gun type burner.
- ✓ It operates more efficiently at capacities up to 1 G.P.H.
- ✓ It costs less to install.
- ✓ It requires no combustion chamber.
- ✓ It requires no stack relay.
- ✓ It is a profitable addition to their line of gas burners and gun type oil burners.

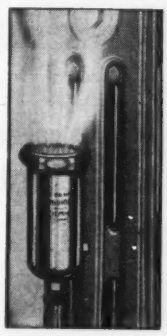
The Kresno-Stamm P.A.G. Ball Flame is your best bet, too. Write today for specifications.



*Pressurized Air Gravity

KRESNO-STAMM MFG. CO. (America) Inc.
PALISADES PARK, N. J.
Canadian Affiliate: Kresno-Stamm Mfg. Co. (Canada) Ltd.
1452 Drummond Street • Montreal, P. Q.

don't let LACK OF HUMIDITY spoil your heating jobs!



No. 95 AUTO-VENT installed on steam radiator in place of the usual air valve.

★ ★

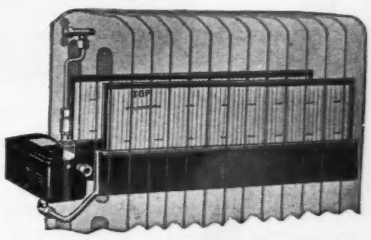
Use **AUTO-VENT**
AUTOMATIC HUMIDIFIER
on low pressure steam systems
"IT VENTS AS IT HUMIDIFIES"

Discharges one pint of water vapor per hour at one lb. steam pressure—sufficient humidity for 2,000 cu. ft. of space. Easily regulated—quiet in operation. To install, merely remove air valve and screw in AUTO-VENT.

Made entirely from non-ferrous metals—lasts indefinitely. Thousands now in use giving perfect satisfaction.

on hot water or steam radiators use

Ol' Faithful
AUTOMATIC HUMIDIFIER



No. 34 OL' FAITHFUL installed on hot water radiator.

Equipped with patented copper bound, corrugated evaporators which vaporize as much as 1½ gal. of water daily at hot water radiator temperature of 130° — capacities 20% greater on steam radiators. Constant water line automatically maintained. Easily installed.

Supply water can be taken directly from hot water radiator, or on steam radiator from nearest water line. Made in three sizes: 18", 24" and 36" lengths. Furnished complete as shown.

Use our
CONVECTOR
Automatic Humidifier

for Concealed Convector Hot Water, Steam or Vapor Radiators. Designed to fill the demand for ample humidification where concealed convector radiators are used. Made in 10 sizes.

★ ★ ★

Maid-O'-Mist are also manufacturers of Convector Humidifiers for all types of Warm Air Furnaces . . . Write today for literature on entire MAID-O'-MIST line.

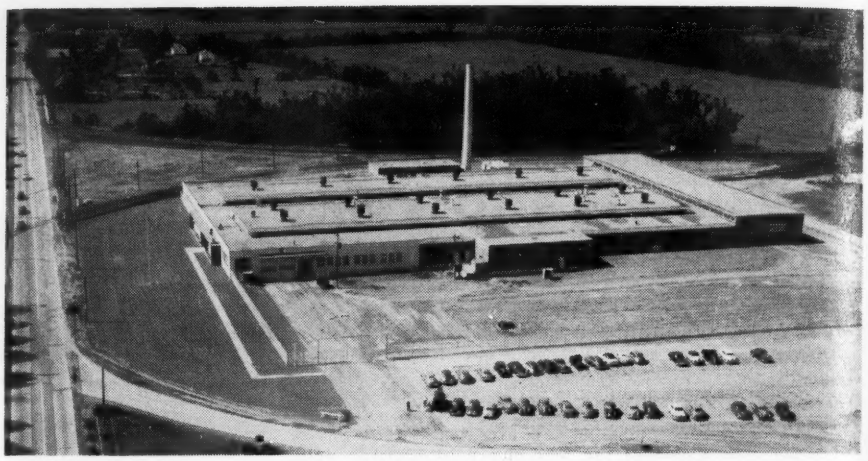
MAID-O'-MIST INC.
3221 N. PULASKI RD.
CHICAGO 41, ILLINOIS

AUTOMATIC HUMIDIFIERS FOR ALL TYPES OF HEATING SYSTEMS

General Fittings makes some personnel Changes

CHANGES made in its sales coverage in the metropolitan New York area have been announced by General Fittings Co., Providence 5, R. I. Jack Jones, former metropolitan New York salesman, has been appointed manager of industrial sales and has been succeeded by William K. Near.

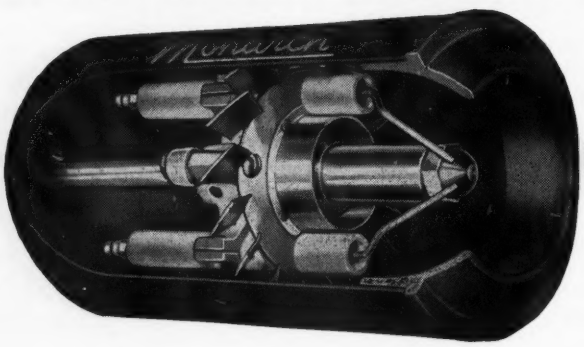
Also, John Belham has been named district sales representative for Rhode Island and nearby Connecticut and Massachusetts areas.



Exterior view *of National Radiator Company's new sheet metal fabrication plant at Duncansville, Pa., dedicated on October 18. It is heated by a two-pipe low pressure steam heating system, powered with two National Radiator steel boilers rated at 8,400,000 Btu each, oilfired by fully automatic horizontal rotary type oilburners, firing capacity, 103 gph. The boilers supply steam for steel processing and for fan type unit heaters used in the plant proper. The fueloil burning system includes two 12,000 gallon, above-ground, storage tanks, dual fueloil pumps with electric oilheating units. A combustion safeguard system protects against flame failure. The unit heaters may be used for air circulation in the summer.*

.....MONARCH.....

Have you tried THE NEW G81 COMBUSTION HEAD



- Balanced, clean and *efficient* fires from .60 to 2.00 gph.
- As easy to install as an ordinary Air Cone and Stabilizer.
- No "adjustments" to tinker with or get out of order.
- Rugged, all metal construction.
- Costs less than any other "Head."

Circular #12251

Monarch Nozzles Best-By-Fire Test

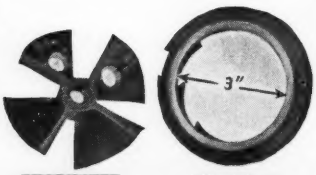
Having Nozzle trouble? Fires crooked? Lopsided? Streaky? Smoky? Take a tip from Monarch ("R" Series solid or "NS" Hollow Sprays) and see the difference.

Circular #4150

Monarch "Anti-Pulsation" Equipment

Want to cure some of those jobs that Rumble, Bump or Pulsate? You can probably do it by installing a recommended Monarch Nozzle, Cone and Stabilizer Combination.

Circular #62250



STABILIZER AIR CONE

Write for Catalog D

MONARCH MFG. WORKS, INC.

2503 E. ONTARIO ST., PHILADELPHIA 34, PENNA.

European Distributor: A. Goutau. Rue de la Scie No. 16. Geneva, Switzerland

Perfex consumer Booklet explains "Magic Dial"

PERFEX CORP., Milwaukee, Wis., has prepared a consumer booklet, "The lady who loved a thermostat," which in "fanciful" but factual terms explains the workings of its "Magic Dial" thermostat. Mrs. Newbryde, relaxing after entertaining guests at an afternoon party in her new home, muses how successful it had been and is surprised to have the thermostat on the wall remark, "Maybe I deserve a little credit for that, eh?"

When she opened her eyes the thermostat appeared to have two eyes and a friendly face and started a conversation that pointed out how a thermostat functions as a starting switch to turn a heating system on and off when heat is needed or when a pre-set temperature has been reached. The controls main function, of course, is to maintain "an even indoor temperature at all times," a goal not achieved consistently enough by some thermostats

Ingersoll

HEAT-RESISTANT STAINLESS STEELS GIVE ALL FOUR!

-when used for Combustion Chambers

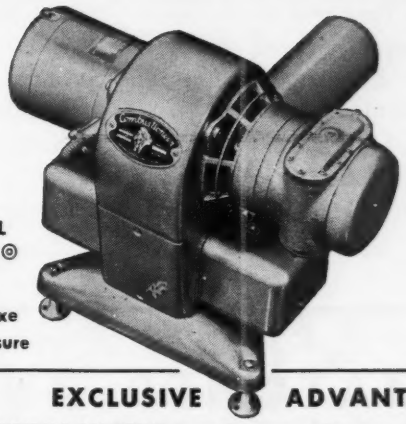
1. MORE QUIET BURNER OPERATION
2. CLEANER HEAT
3. BETTER TEMPERATURE CONTROL
4. CONSIDERABLE SAVINGS ON FUEL COSTS

If you are using or contemplating the use of heat-resistant stainless steels for combustion chambers for oil burner furnaces, we are specialists in producing these types of steels. Whether you are a large or small user of these steels our steel making facilities can offer exceptional service by especially shearing to your specified combustion chamber steel blanks, or multiples thereof. Write us for additional information.

Ingersoll STEEL DIVISION
BORG-WARNER CORPORATION
310 South Michigan Avenue, Chicago 4, Illinois
Plant: New Castle, Indiana

THE ALL NEW *Combustioneer*®

Low Pressure Oil Burner



MODEL dLP◎
◎ deluxe low pressure

EXCLUSIVE ADVANTAGES!

- **"HYDRA-VATED" Low Pressure Pump**
- **"A flip of the finger" selects required oil capacity —variable from .60 to 3.0 GPH with burner operating.**
- **"Flo-mist" nozzle—15 year clog proof guarantee.**
- **No pistons to change. No extra pumps needed.**
- **Secondary air, and variable oil capacity adjustable while burner is running.**
- **No lift pump required for outside tank installations.**
- **No special high speed motor—standard motor used.**
- **Simple full floating, hydraulically operated piston —no linkage to wear.**
- **Interchangeable from low to high, or high to low pressure.**

Features a completely new hydraulically operated low pressure pump—utilizing a free-floating piston which floats in a bath of oil. Operates equally well with inside, outside, single or double line tank installations—*no extra pump or parts need to be added.* Two positive hydraulically operated shut off valves. **NOTE: *Combustioneer "HYDRA-VATED" pump has a separate Underwriters' approval as a fuel pumping unit.*** Exclusive Triple Velocity Visorhead: 1. High velocity air above nozzle, deflected downward by visorhead; 2. Swirling velocity around nozzle thoroughly intermixes oil with air; 3. Low velocity below nozzle permits downward deflection. Underwriters' approved to burn all domestic fuel oils.

When you sell ***Combustioneer,*** you can be sure no other manufacturer gives dealers more real profit-making assistance. Mail the coupon for complete details on the new ***Combustioneer*** Low Pressure oil burner.

Combustioneer **GAS BURNERS • HIGH AND LOW PRESSURE OIL BURNERS • COAL-GAS-OIL FURNACES • STOKERS • HUMIDIFIERS**
Manufacturers of Better Heating Equipment Since 1928
Combustioneer **DIVISION**
THE STEEL PRODUCTS ENGINEERING COMPANY
SPRINGFIELD, OHIO

MAIL AT ONCE!

Combustioneer **DIVISION**
The Steel Products Engineering Co.
1307 West Columbia Street, Springfield, Ohio
Please send me information on the ***Combustioneer*** dLP Oil Burner.
Name _____
Firm Name _____
Street Address _____
City _____ Zone ____ State _____

Fueloil & oilheat

because they "can't adjust to exactly the right degree of sensitivity."

Because every home is different, the explanation continues, the Perfex people developed "Magic Dial," which actually "controls the control." "You'll notice," Mrs. Newbryde is told, "I have two dials. First, you set my lower dial to the temperature you like. But you need more than mere temperature control. You need to operate your heating system just enough to balance the heat loss that occurs in any home, no matter how well insulated. You do this by adjusting my Magic Dial, which regulates the length of time the burner operates, without over-shooting."

The booklet, which is die-cut in the shape and size of a thermostat, concludes with more detailed explanations of how to determine the correct comfort setting on the "Magic Dial." Written in breezy, informative, but informal, style, the booklet is an excellent example of how a technical explanation can be presented to the consumer in an understandable, easily read way.

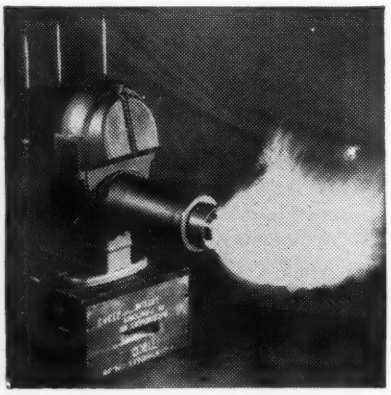
UNMATCHED ANYWHERE

Compare!

INSIST ON THE ULTIMATE—

in ENGINEERING

and COMBUSTION



- ***ENGINEERING***

  Here the COMMODORE balances pencils to demonstrate vibrationless operation . . . while burning in open air.

- ***COMBUSTION***

  1. **Without aid of firebox.**
  2. **Ignition cut-off.**
  3. **Normal flame retained.**

Beckett

COMMODORE Oil Burners

Numerous U.S. and Foreign patents, issued and pending, prove Commodore principles must be different. Join the swing to Commodore. Sold Coast to Coast.

R. W. BECKETT CORP., ELYRIA, OHIO

Domestic and Sandberg prepare Heating Guide

A COMBINED EFFORT on the part of the Domestic Mfg. Co., Seattle 1, Wash. and the Sandberg Mfg. Co., Portland, Oregon, has resulted in the preparation of an informative booklet, "Simplified Guide to Heating," worked up with a three-fold purpose in mind.

It was designed primarily to educate the buying public; secondly, to serve as a sales help for heating salesmen and thirdly, to furnish basic information to architects and builders. Dick Willard, vice-president of Domestic, in exploring the reasons for the book, explained that he felt the trend that dealers had followed in recent years of concentrating on the new home market had led them to neglect the increasingly-important replacement market. "The booklet," he states, "was an effort to make a better salesman out of those dealers who have possibly forgotten some of the finer points of 'replacement' selling."

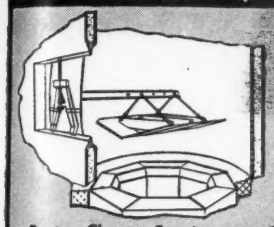
In it are described in simple terms what "heat" is, a simple formula for approximating the heating loss of a residence and some of the newest types of warm air heating, including "down-flo" and "counter-flo." The different systems are explained on pages that contain photographs and floor plans of the houses in which they are used, with transparent overlays tucked in a flap in the back cover that are keyed to corresponding floor plans. The overlays can be used to illustrate the manner in which duct work would be installed in individual systems.

Honeywell Controls used in Jersey Turnpike Buildings

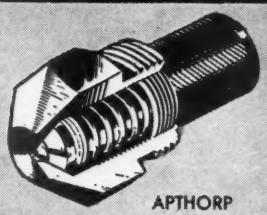
RESTAURANTS, gas stations, administration and service buildings adjoining the southern section of the New Jersey Turnpike will be air conditioned with systems operated by controls made by the Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. The system is said to be the largest ever engineered for a public road project and, when the 118-mile roadway is fully opened early next year, at least 12 buildings will have the control setup, plus 20 toll houses.

The control system was developed primarily to reduce fuel waste as well

FOR Quality INSTALLATIONS

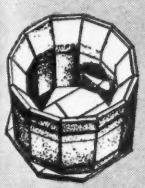


Boston Chrome Steel "HANG-DOWN" BAFFLE

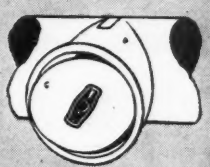


APTHORP True Alignment OIL BURNER NOZZLE

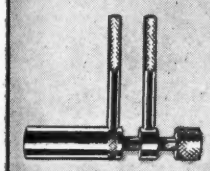
BOSMACO



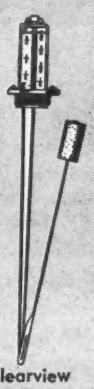
Instant-Glo COMBUSTION CHAMBER



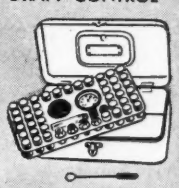
The Boston Standard DRAFT CONTROL



Ideal NOZZLE EXTRACTOR



Clearview OIL TANK GAUGE



BOSMACO Apthorp NOZZLE KIT

WRITE FOR COMPLETE INFORMATION

BOSTON MACHINE WORKS COMPANY

Oil Heating Supplies Division, Manufacturers, Lynn, Mass.

ENGINEERED FOR YOUR BURNER

ACME ELECTRIC CORP.

5012 WATER ST. CUBA, N. Y.

Acme ACME Electric

TRANSFORMERS

The Gulf Oil Corporation extends to its dealers and many friends, best wishes for

A Merry Christmas and A Prosperous New Year!

GULF

SOLAR HEAT

When you sell GULF SOLAR HEAT, you sell clean heat and comfort.

GULF OIL CORPORATION

GULF REFINING COMPANY

as provide extra comfort by combining the latest automatic controls with new principles of indoor climate control. A network of thermostatic controls solved the problem of even heating in the 3-floor administration building at New Brunswick, N. J.

Engineers who designed the heating and air conditioning systems said the controls provided are sensitive enough to compensate for increased heat and humidity caused by crowds in such buildings as restaurants.

Easy Estimator issued for Radiant baseboard Panels

"EASY ESTIMATOR," published by Radiant Baseboard Panels, Inc., 900 W. Main St., New Britain, Conn., makers of Radiant Ray baseboards, has been designed as a combination handbook and work sheet for making approximate estimates of heat losses and other data to provide quick overall costs for baseboard heating installations. The methods recommended in the pocket-size booklet are not intended to replace final, detailed estimations as suggested by I-B-R and other recognized authorities, but the formula explained is based on working estimations figured according to I-B-R calculations and is accurate within 10%.

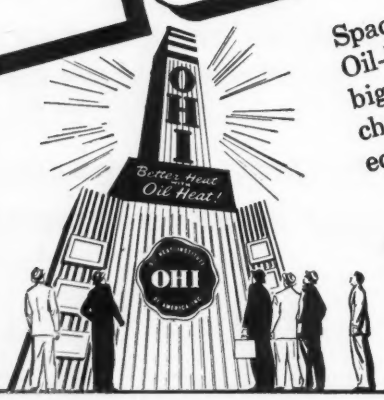
The Estimator also includes simplified installation data, handy forms for computing individual room requirements, a form for summarizing overall costs, price lists and a chart illustrating economical piping practices. The Estimator becomes a complete data file for each installation, with duplicate summary sheets providing a permanent record of materials ordered or figured in quotations.

When Research Products Corp., *Madison, Wis., received a recent and urgent call for a new supply of D-O filters—dust and odor removing—they were delivered within a few hours to Vory's Bros., Inc., R-P distributors in Columbus, Ohio. A telephoned order for replacements, after Vory's original supply was exhausted sooner than expected, resulted in a decision to fly the filters. A. W. Brown, at the left of the picture, supervises loading of the consignment at the Madison airport. Research Products admits this is not normal routine, but indicates what can be done to help suppliers out of a bad spot.*

Reserve your space now for
The Greatest Show on Earth for the entire oil-heat industry

29th ANNIVERSARY OIL-HEAT EXPOSITION

April 14 through 18, 1952 — Commercial Museum, Philadelphia, Pa.



Space is going, going, going—*fast*—for the 29th Anniversary Oil-Heat Exposition, April 14 through 18, 1952. It's *two* big shows (1952 and 1953) rolled into one! Don't miss this chance to present your product to an expected 7,000 equipment and fuel oil dealers and 25,000 consumer prospects!

29th Annual OHI Convention

WRITE • PHONE • WIRE for your Space Reservation NOW! Sponsored by:
The Oil-Heat Institute of America, Inc.
6 E. 39th Street, New York 16, N.Y.
Murray Hill 5-1638

Dalou Equipment sponsors Clinic for Distributors

A ONE-DAY CLINIC, held on November 19 at the new and enlarged offices of Dalou Equipment Co., Philadelphia 30, Pa., was arranged for Eastern States distributors of the Granberg Corp., Oakland 8, Calif.

David J. Constantine of Dalou sponsored the clinic, which was conducted by Bob MacFarland, in charge of Eastern sales for Granberg and A. E. McKeever of the Veeder Root Co., Hartford 2, Conn. Principal subject of discussion was the sales and service of Granco pumps and meters and Veeder Root counting devices.

Shell Pipeline celebrates Anniversary

SHELL OIL CO. has celebrated the 25th anniversary of the 8" diameter pipeline that carries a million-and-a-half gallons of petroleum products daily from its Wood River refinery to an East Chicago, Indiana terminal. A dinner, held in Whiting, Ind. on November 6, marked the anniversary and honored 38 employees with watches in recognition of 25 years of pipeline service. The entire system has a staff of 250, with two-thirds of them having been with Shell for ten years or more.

V. K. Leonard, superintendent of the line, announced that the pipeline has brought more than 10 billion gallons of products to the Chicago area and supplies many Great Lakes cities as well as the greater Chicago market. The East Chicago terminal — the northernmost outlet—sends out products by truck, train and tanker.

Originally built to bring crude oil from the south, in 1940 when Shell consolidated refining operations at Wood River, the East Chicago plant was converted into one of the world's largest petroleum terminals and the pipeline began carrying finished products. Twenty-two different grades of products, including kerosene and various fueloils, are handled, all moving through at the same time and kept separated because the line operates under pressure and the products move in high-speed turbulent flow.

Furnace Blower Selector introduced by Brundage

THE BRUNDAGE COMPANY of Kalamazoo, Michigan has introduced a unique Furnace Blower Selector designed for an accurate, simplified method of blower sizing and selection. Incorporating technical engineering data, the Selector includes a CFM Determination Table based on output ratings and desired temperature rise. When required CFM is set against Static Pressure, the selector indicates blower size, rpm, hp requirements, outlet velocity, pulley size and dimensional data. Performance and capacity data indicated are computed from tests conducted in strict accordance with NAFM Standard Test Code. The selector also includes a Blower-Filter Unit Selector based on furnace size or Btu rating.

Available also is a new 27-page catalog (#51) describing the new Series "X" Brundage Blower Assemblies. Photographic prints are used for dimensional illustrations. The catalog includes constant pressure curves and performance tables for all sizes of the "X" series.

It's the *LOW DOWN* DIRT trapped by WILSON'S HAIR FILTERS that GUARANTEES LONGER LIFE

In Wilson *Hair* Filters the entire dust-holding capacity is completely utilized. This means, *no surface dust stopping only,* but Full-Depth Dust Trapping at its best . . . and many extra months of filter life.

The *reasons* are so simple:

1. The hair media in Wilson *Hair* Filters act in the same manner as Mother Nature's proven way of filtering the air you breathe. It's the *hair* that cleans the air . . . more easily, more effectively, more economically.
2. The multi-directional distribution of the hair in Wilson *Hair* Filters literally invites all dust and dirt to come in and be trapped throughout the entire filter interior.
3. Most brands of air filters require oiling on their inlet surfaces. This stops dust prematurely, loads up the incoming air side and materially shortens filter life.

Wilson Hair Filters are not oiled on the inlet side. Instead, they receive an even distribution of mineral oil *on their outlet surface,* which:

(a) augments the already amazing ability of the hair itself, to catch and hold dust, and—

(b) builds an impregnable barrier which halts dust and dirt after reaching the furthermost practicable penetration point.

WILSON & CO., INC.
(Air Filter Division) 4100 South Ashland Ave., Chicago 9, Ill.

Wilson Hair Filters are another quality product of Wilson & Co., world-famous for meat products, sports equipment, pharmaceuticals, hair products, etc.

The famous Edgeseal, the original *Hair* Filter with the patented self-sealing edge.

The popular Honeycomb, the dressed up *Hair* Filter that is so easy to handle.

Save delay. Save dollars. Save doubt. Send for FREE sample with details and prices.

MEMBER NATIONAL WARM AIR HEATING AND INDOOR COMFORT AIR CONDITIONING ASSOCIATION

WILSON'S HAIR FILTER

WILSON & CO. INC.

Acme Electric Plant completed in Toronto

A NEW PLANT for Acme Electric Corp. Ltd., Toronto, Canada, has been completed for the production of transformers of various kinds, including those used for oilburner ignition. The factory contains approximately 20,000 sq. ft. of floor space and is located in East York, Toronto's new industrial section. The plot on which it is located will permit expansion should more building space be required in future.

E. A. Miller is president and Eugen Meth is vice-president of the company, which will have access to the designs and developments of Acme Electric Corp., Cuba, N. Y. and thus will be in a position to manufacture without the need of creating its own designs.

Emerson Electric moves Chicago District Office

THE CHICAGO district office of The Emerson Electric Mfg. Co., St. Louis 21, Mo., has completed a move to larger quarters located at 1623-25 South Pulaski Road, Chicago 23.

All warehouse and office operations are consolidated at the new address to facilitate delivery and shipments of fans and motors. T. J. Egan continues as Chicago district manager.

Bristol Bulletin on running time Recorders

THE BRISTOL COMPANY, Waterbury 20, Conn., has put out a new bulletin (OP 1504) to describe the new series 500 Running-Time Recorders. The bulletin covers the application of the Recorder to refrigerators, pumps and motors, conveyors, continuous ovens, furnaces and such. The bulletin carries many illustrations of various models, reproduction of chart records, and operational drawings; photos of several installations are also included.

Superfex furnace Salesmen attend factory sales Meeting

SUPERFEX furnace salesmen attended a general sales meeting on November 30, held at the Cleveland factory of Perfection Stove Co.

A. G. MacLaren, manager of Superfex Furnace Sales Div., supervised the meeting during which salesmen from all over the country were briefed on new products and on 1952 sales promotional and advertising plans.

Perimeter heating Text published by Lennox

THE LENNOX FURNACE COMPANY, Marshalltown, Iowa, has published a complete text on perimeter heating application and installation. The manual will give to heating contractors full information on the many advantages of perimeter heating that are gaining popularity for this new heating method. It tells in complete detail how to plan, layout and install a perimeter heating system correctingly in slab floor homes, crawl space homes and basement homes.

American Air Filter sets up Canadian Outlet

CANADIAN business of the American Air Filter Co., Inc., Louisville, Ky., will be handled after January 1 by American Air Filter of Canada Ltd., Montreal, with William G. Hole, formerly of Darling Bros., Ltd., in charge of all Canadian operations.

Petroleum haulers have long wanted an air-operated emergency valve. Here it is—and every bit as fine as all the other Philadelphia Valve products, which have served the industry for so many years.

This is a compact elbow-type valve, made in both 3" and 4" sizes. There's nothing to rust or get out of kilter. There's no stuffing box to be repacked or tightened. You can mount the valve on any tank truck equipped with air brakes; it will never interfere with normal brake operation. Air cylinder can be removed as a unit. Compact control mechanism can be conveniently located at side or rear of truck. Finger-tip operation gives instant, full flow.

The bonnet and piston assembly can be removed, in a matter of minutes, with the use of an extractor wrench which is operated through the manhole cover. This type of bonnet eliminates the necessity of steaming and getting into the tank in order to replace the disc. It saves many costly hours of servicing time! (Our mechanically-operated emergency valves also provide this feature.)

Two types: Multiple (any single valve or combination of valves can be opened at one time); Massachusetts (only one valve can be opened at one time).

This valve is one more reason why you'll want to *standardize* on Philadelphia Valve Company equipment—first in the industry for economy, fast unloading, safety, long life, trouble-free performance. Send for catalog 170 for description of the full line, illustrated with engineering drawings.

PHILADELPHIA VALVE COMPANY

3413 ARAMINGO AVENUE, PHILADELPHIA 34, PA.

PACIFIC COAST DISTRIBUTORS • Oil Marketing Equipment Co., 325 Fremont Street, San Francisco 5, California
Howard Supply Co., 5125 Santa Fe Avenue, Los Angeles 11, California

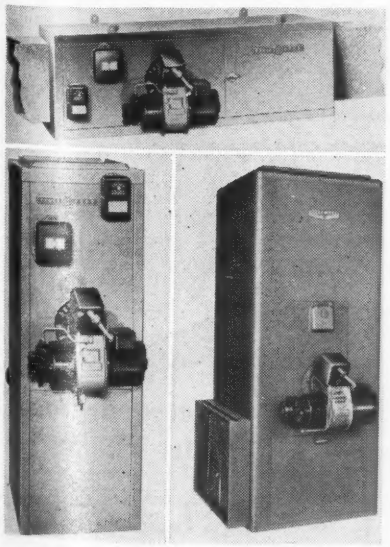
New Products

Norge adds a Number of oilfired Furnaces to Line

AVAILABILITY of two additional oilburning suspended furnaces and two hi-boy models have been announced by Norge Heat. The suspended units have bonnet outputs of 100,000 and 150,000 Btu/hr., and join three other models in the OF600 series, while the new hi-boys are rated at 150,000 and 180,000 Btu/hr. and represent additions to the F-600 series.

In design and construction the new suspended and hi-boy models resemble other units in their series and feature a patented, corrugated, plate-type heat exchanger of 12 gauge steel. They are fired with flange-mounted pressure atomizing oilburners, making use of a "tunnel-firing" design of the units' horizontal combustion chamber. Heating surface area is large for the compactness of the units and both types feature interchangeable filter frames and access panels conveniently located.

Another addition to the Norge Heat line is a new series OF700, oilburning gravity and winter air conditioning furnaces. New units include the 110G, gravity unit with a bonnet output of 100,000 Btu; 105U hi-boy and 105B lo-boy, bonnet output capacities of 105,000 Btu. Each is equipped with pressure atomizing burners and automatic controls, featuring vertical steel combustion chambers and connecting outer drum heat exchangers, electrically-welded into gas-tight, one-piece units.



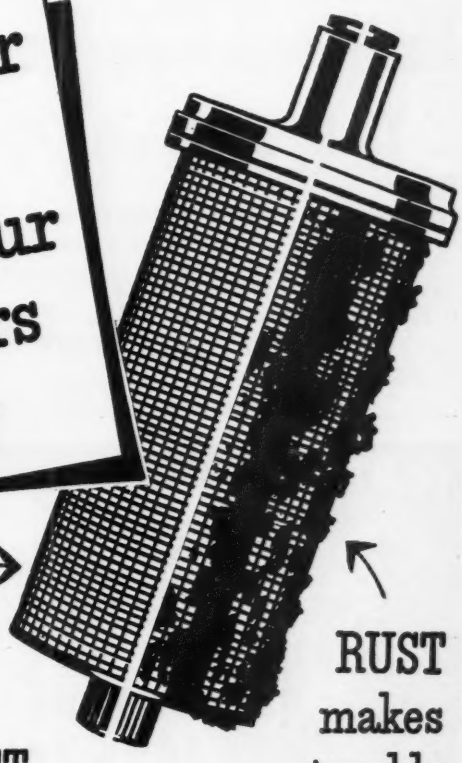
Made by: Norge Heat Div., Borg-Warner Corp., 672 E. Woodbridge St., Detroit 26, Mich.

Oilfired, "All-Year" Conditioner by Servel

SERVEL has announced an oilburning unit that cools in summer and heats in winter, that uses one source of heat to perform both functions. In this respect it utilizes the same absorption principle used in Servel refrigerators and in other air conditioners that operate on gas or steam. There is no motor, compressor or other parts in the cooling system.

The new model is the DE-96-OF

How Sinclair RD-119 can keep Your Customers Happy



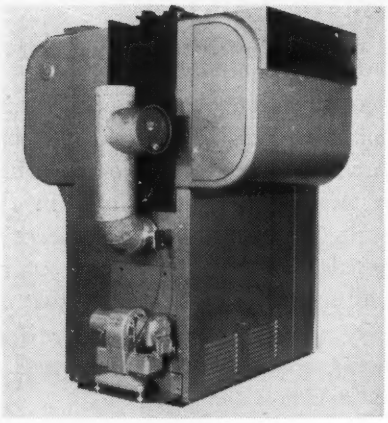
RD-119 in Sinclair Fuel Oil STOPS RUST

RUST makes trouble

RUST clogs filter screens and burner nozzles—it's a big reason for many customer complaints and service calls. But today, Sinclair Fuel Oil contains RD-119®, Sinclair's miracle rust inhibitor. Used regularly, RD-119 stops rust —reduces your service-call expense, helps keep customers happy and satisfied. Save money, save trouble with . . .

SINCLAIR FUEL OIL WITH RD-119®

ANTI-RUST Super Flame ®



and uses a low-pressure oilburner, with an adjustable input capacity of 0.6 to 3.0 gph, that heats a compact steam generator to furnish the energy for summer cooling and winter heating. In addition, the unit also humidifies, filters and circulates the air. The cast-iron steam generator features a stainless steel "hole in the doughnut" for high heat transfer efficiency.

Cooling capacity of this model is equal to that of 5.4 tons of ice per day; heating output is 96,000 Btu/hr., making it suitable for residences with 7 or 8 rooms, 17,000 to 27,000 cu. ft. of space. Remote control is centered in a finger-tip "Selectrol," permitting change from the heating to the cooling cycle, or vice versa, with the flick of a switch. A special "Selectrol" automatically switches the unit to heating or cooling whenever temperatures reach pre-determined levels.

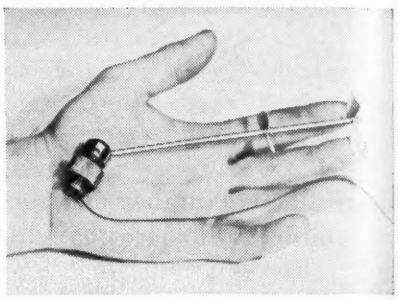
W. Paul Jones, president of Servel, reveals this first model will be available for delivery early in the Spring, with two other oil-operated air conditioners to follow later in the year. These will be a 3.3 ton unit with heating output of 96,000 Btu/hr. and a 5.4 ton unit with heating output of 144,000 Btu/hr.

The units are suitable for offices, stores, shops or small plants, as well as residences, and operate on Nos. 1 or 3 fueloil. Any oil tank that is used for automatic heating will meet the fuel storage requirements of the "all-year" units. Electric power demand is very low, the fan and controls operating on 110-220 volt, single-phase, 60-cycle current.

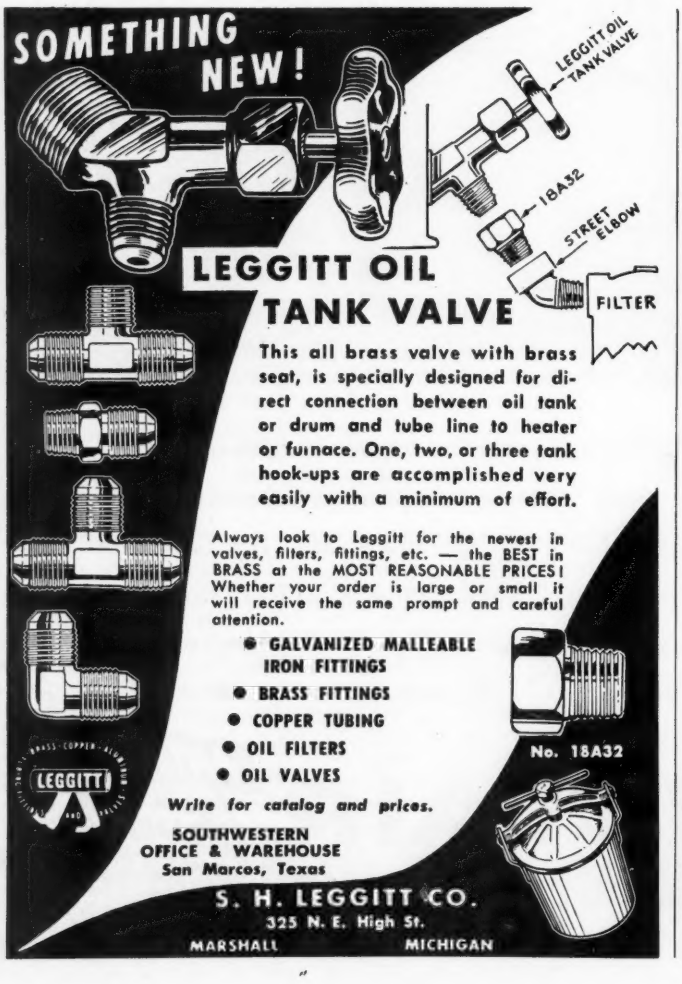
Made by: Servel, Inc., Evansville 20, Ind.

Overhead Heaters Instrument determines Burner air Pattern

AN AIR PATTERN INSTRUMENT, announced by Overhead Heaters, Inc., permits determination of the air pattern of installed oilburners. And, it does not require removal of the burner.



Using the instrument necessitates removal of the burner electrode assembly and taking off the nozzle. The instrument's cord is then dropped through the fuel line and the instrument is mounted on the electrode assembly in place of the nozzle. The assembly is reinstalled, with the electrodes unconnected, and the cord pulled back to hold the instrument horizontal. After the oil line to the


SOMETHING NEW!
LEGGITT OIL TANK VALVE
18A32
STREET ELBOW
FILTER
LEGGITT OIL TANK VALVE
This all brass valve with brass seat, is specially designed for direct connection between oil tank or drum and tube line to heater or furnace. One, two, or three tank hook-ups are accomplished very easily with a minimum of effort.
Always look to Leggitt for the newest in valves, filters, fittings, etc. — the BEST in BRASS at the MOST REASONABLE PRICES! Whether your order is large or small it will receive the same prompt and careful attention.
● GALVANIZED MALLEABLE IRON FITTINGS
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● COPPER TUBING
● OIL FILTERS
● OIL VALVES
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Save call backs with
TACO TEMPERING VALVES because they S-T-R-E-T-C-H
TANKLESS HEATER PERFORMANCE
GUARD AGAINST EXCESSIVELY HOT WATER
MINIMUM SERVICE PROBLEMS
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Better Heating Better with Taco
TACO HEATERS, INCORPORATED
137 South St., Providence 3, R. I.

pump has been disconnected, the burner is started and the reaction of the spinners on the instrument is observed with a flame mirror and lead light. If the spinners remain stationary, the air pattern is hollow; if one or both of the spinners move, the air pattern is solid.

To determine the angle of the air pattern, the cord is released slowly until the spinners drop through the hollow or solid air pattern and stop spinning. That point is marked on the cord, the cord is pulled back as far as it will go and clamped. Then, when the electrode assembly has been removed, the cord released to the marked point, the angle of air pattern is read on the instrument's etched scale.

Made by: OverHead Heaters, Inc., 1354 Book Bldg., Detroit 26, Mich.

Magnus Technique for cleaning Bunker C Tanks

A TECHNIQUE, involving the use of Magnusol HD, an emulsifiable solvent cleaner, has been announced by Magnus Chemical Co. for cleaning sludge and muck residues from Bunker C fueloil tanks. Magnusol HD is mixed with distillate in the proportion of about one part cleaner to 10 parts distillate and sprayed on the inner walls of the tank through a large spray gun. By the time the operator—suitably protected by safety clothing—has covered all the inside surfaces with the mixture, the surfaces first treated are ready to be flushed off.

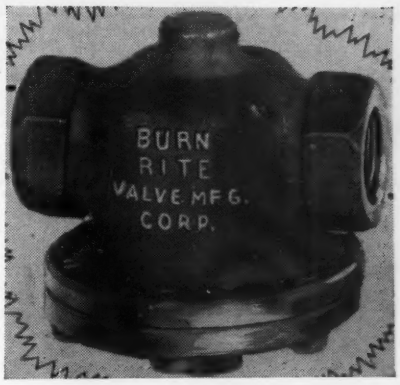
Magnus, reporting the results of initial tests of this process, indicates that flushing off the areas with water under pressure, after they had been treated with the mixture, effectively cleaned the tanks down to the bare metal. Subsequent tests have indicated that one man can clean out a compartment in less than a half hour. The technique can be used on tanks too small for a man to enter by coating the inside of the tank with the mixture sprayed from the outside.

Made by: Magnus Chemical Co., Inc., South Ave., Garwood, N. J.

Burnrite adds 2″ Size to Line of anti-syphon Valves

ADDITION of a 2″ size to the Burnrite line of anti-syphon valves has been announced, so that seven sizes now can be furnished: 3/8″, 1/2″, 3/4″, 1″, 1 1/4″, 1 1/2″ and the new model. Also, sizes can be furnished in a range of head pressures from 5 to 20 ft. Burnrite valves are rust-proof and low-vacuum operating units, and once installed require no attention.

Installation suggestions recommend that the valves be installed on the piping from an outside tank as near as practicable to the point where the oil line enters the building. When used on an inside tank, all piping from



the tank to the valve should be higher than the tank, and on both installa-

PROVEN IN HEAVY INDUSTRIAL OILS

More profits for you ... sell PET-RE-NOL in quarts to your customers.

Pet-Re-Nol FUEL OIL CONDITIONER *now packaged for home use*

PET-RE-NOL has been successfully used for years by major industrial and commercial institutions and oil companies from coast to coast. PET-RE-NOL is a concentrated chemical compound which readily mixes with fuel oil or kerosene, disperses the sludge and absorbs water to produce a combustible solution. Now PET-RE-NOL is available to you in quart cans.

HERE'S WHAT PET-RE-NOL DOES...

PET-RE-NOL REDUCES FUEL COSTS by burning off sludge, keeping burners free of carbon and produces a hotter flame and cleaner fire.

PET-RE-NOL KEEPS HOME CLEANER by reducing smoke and soot, and decreases oil odors.

PET-RE-NOL CUTS REPAIRS by keeping oil lines clean, removing carbon and soot—prevents rust and corrosion.

PET-RE-NOL PAYS FOR ITSELF in fuel savings—is used and recommended by oil companies, industrial users and servicemen.

PET-RE-NOL IS ALSO AVAILABLE TO OIL DISTRIBUTORS IN BULK

NORMAN CHEMICAL COMPANY
470 Cleveland Ave. No., St. Paul 4, Minnesota
Please send me a FREE sample of PET-RE-NOL and complete information.
I am a ☐ *oil burner serviceman* ☐ *oil dealer* ☐ *jobber*
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Address _____
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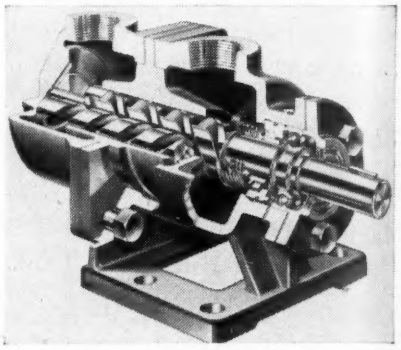
. . . . New Products

tions the valves are positioned horizontally with the arrow cast on the valve housing pointing in the direction of the desired oil flow.

Made by: Burnrite Products Co., 177 South First St., Mt. Vernon, N. Y.

DeLaval introduces IMO Pump for heavy Fueloil

DE LAVAL'S IMO series A313A pump is designed for pumping petroleum products and other light or viscous liquids in volumes up to 85 gpm against pressures up to 150 psi, as required for rotary and steam atomizing oilburners, oil transfer and similar service. There are only three working parts in the pump, a power rotor and a pair of sealing or idler rotors, which mesh with the power rotor so that liquid is conveyed continuously from inlet to outlet. The IMO can be direct-connected to electric motors, turbines or other high speed drivers without reduction gearing, belts or chains.



Its compact design requires little space for installation and the pump can be mounted in any position, with suction located at top, bottom, horizontal left or right. All parts are interchangeable.

Made by: DeLaval Steam Turbine Co., Trenton 2, N. J.

Baerite water Treatment for domestic heating Boilers

BAERITE water treatment formula No. 17-A, used for many years in commercial and industrial applications, is being marketed for use in domestic heating boilers. It is a complete formula, designed to remove all scale and rust from the heating units and return lines. The continued use of the product is described as preventing all scale and corrosion and the damage they cause.

Instructions for use of the compound point out that keeping the boiler filled with water winter and summer and using Baerite will permanently protect the boiler. Small heating boilers should be drained once a year, large boilers oftener, says the company, and Baerite always should be used when filling with fresh water.

Made by: Water Treatment Co. of America, 1159 Hodgkiss St., Pittsburgh, Pa.

SETTE Drum and Tank Filters remove dirt, scale and water...filter out impurities...assure free flowing, clean burning oil. Reduce fuel bills and virtually eliminate burner maintenance! Burner owners can avoid the stubborn job of cleaning furnaces. Never again need they worry about gummy tanks, clogged fuel lines... or be without heat just when it is needed most.

SETTE Filters are simply owner-installed and take only minutes to clean. The low price is returned many times over in operating efficiency and reduced maintenance.

More Sales! When burner owners learn they can filter their oil and forget the work —sales soar! Make certain your stock of SETTE Drum and Tank Filters is complete for peak season ahead! Build customer confidence — and profits — order today! If your Jobber cannot supply you, order direct. Shipped postpaid, 40% discount in doz. lots.

MARQUART MANUFACTURING COMPANY

Manufacturers of the famous SETTE Self-Closing Barrel Faucet

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This famous Autocrat Line is one of the oldest and finest in America. As a Dealer, you can safely recommend Autocrat Oil Burners to your customers. You may promise efficiency, dependability and economy . . . and Autocrat with the new Combustion Head will live up to your promises. Write at once for prices and liberal Dealer discounts.

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AUTOCRAT OIL BURNERS

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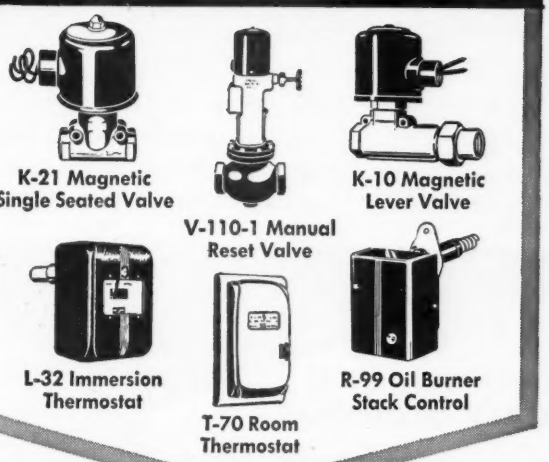
AUTOMATIC CONTROL

for product or process



K-21 Magnetic Single Seated Valve

V-110-1 Manual Reset Valve

K-10 Magnetic Lever Valve

L-32 Immersion Thermostat

T-70 Room Thermostat

R-99 Oil Burner Stack Control

GENERAL CONTROLS

801 ALLEN AVENUE GLENDALE 1, CALIFORNIA

Manufacturers of Automatic Pressure, Temperature, Level and Flow Controls

FACTORY BRANCHES: Baltimore 5, Birmingham 3, Boston 16, Buffalo 3, Chicago 5, Cincinnati 2, Cleveland 15, Dallas 2, Denver 4, Detroit 21, Glendale 1, Houston 6, Indianapolis 4, Kansas City 2, Minneapolis 2, Newark 6, New York 17, Philadelphia 23, Pittsburgh 22, St. Louis 3, San Francisco 7, Seattle 1, Tulsa 6, Washington 6.

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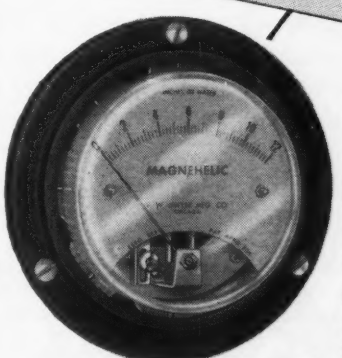
"MAGNETIC COUPLING"

Exclusive Feature of

DWYER

MAGNEHELIC PRESSURE GAGE



The unique design cannot be harmed by sudden pressure surges, shock loading or severe vibration. For accuracy, sensitivity, and long service life the Dwyer Magnehelic Gage cannot be equalled.

Extreme accuracy results from the elimination of friction between the flexible diaphragm and the indicating mechanism. A magnetic force transmits pressure fluctuations to the 3½" easy-to-read dial of the Dwyer Magnehelic Gage.

A Precision Instrument Sensitive to Pressure, Pressure Differentials or Vacuum from 0-½" water or 0-2 psi.

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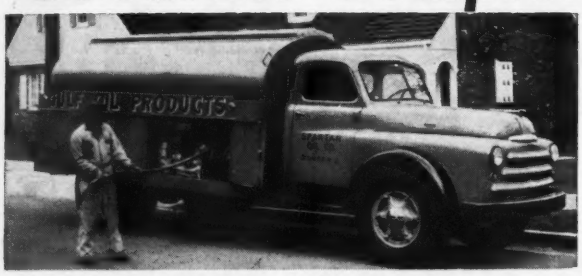
F. W. Dwyer Mfg. Co.

315 SO. WESTERN AVE.

CHICAGO 12, ILLINOIS

Greatest Complete Fuel Oil Truck Value Ever Offered!

IMMEDIATE DELIVERY



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1300 gallon — 2 compartment tank — Fully Skirted, Top Shrouding, Your Choice 2" Ticket Printer 125 foot 1¼" Hose and Electric Reel, 1951 Dodge 2 Ton Model HH with 8.25x20 10 ply tires **$4,280.00**

1600 gallon — 2 compartment tank — Equipment same as above. Mounted on a 1951 Dodge 2½ Ton Model K Chassis with 900x20 10 ply tires **$4,950.00**

2200 gallon — 2 compartment tank — Equipped with 2" ticket printing meter (your choice) 125' 1½" Hose and Electric Reel. Mounted on a 1951 Dodge 3½ Ton Model V with 1100x20 12 ply Tires ...**$6,975.00**

Rear-installed equipment optional on all sizes.
Other Sizes, Prices on Request — All prices subject to 8% Federal Tax

DECKER BROS. PETROLEUM SALES
Phone: Hawthorne 7-2100-2101-2102
300 Block on LINCOLN AVENUE — HAWTHORNE, N. J.

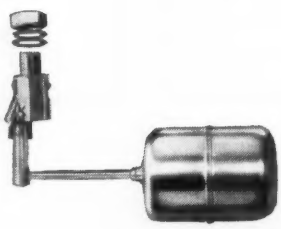
. . . . New Products

McDonnell No. 18 float Valve in three Models

A FLOAT-OPERATED VALVE, the McDonnell No. 18, provides large capacity for a valve of such compact size and combines husky, non-corrosive construction with simplicity of design and operation. Three variations are available in the series: No. 18, consisting of the valve mechanism, and float; No. 118, designed to protect against back-siphonage, having the float mounted at right angles to the valve so that the valve itself is always far above water level and No. 518, float and valve in a die-cast chamber, with a well-fitting cover. This latter variation is meant for external applications, such as humidifiers.

The valve mechanism, consisting of only a few parts, is made of copper or brass, except for its neoprene valve seat. It opens to full capacity with

No. 18



No. 118

only small float drop and closes tightly against supply pressures up to 100 lbs. The single brass pin that holds the assembly together simplifies disassembly for inspection or cleaning.

Capacity of the No. 18 series ranges up to almost 1500 gph, depending upon supply pressure. For mounting the valve, the water supply connection has a ⅝"-18 machine thread with matching nut and washer. For actual water supply line, either ⅛" pipe or ¼" O.D. tubing, the connection has a ⅛" pipe tap. Details are contained in bulletin L-100.

Made by: McDonnell & Miller, Inc., 3500 N. Spaulding Ave., Chicago 18, Ill.

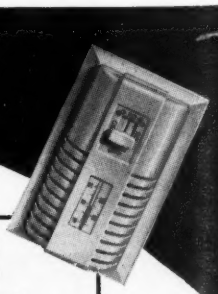
Bock Model 130E is largest in Series

MODEL 130E Bock water heater is the largest of the 100 series. It is rated at 500 gph at 80 degrees rise, and has an actual recovery rate of 550 gph at 85 degrees, so that it can deliver well above its rating. Construction features include eighteen 3" steel tubes, 5/16" thick plate heads and 3-1/6" thick outer shell.

Oilfired models can be furnished with or without burner and controls. The heater uses a gun type burner,

McCORKLE CONTROLS
for Vaporizing Oil Burners
Satisfy dealers . . . Satisfy customers

McCorkle Controls are backed by a record of 18 years of dependable service. Dealers endorse them, because their rugged simple construction reduces service calls to a minimum. Customers appreciate them for their dependable, accurate operation.



Write today for literature and specifications to cover your particular requirements.

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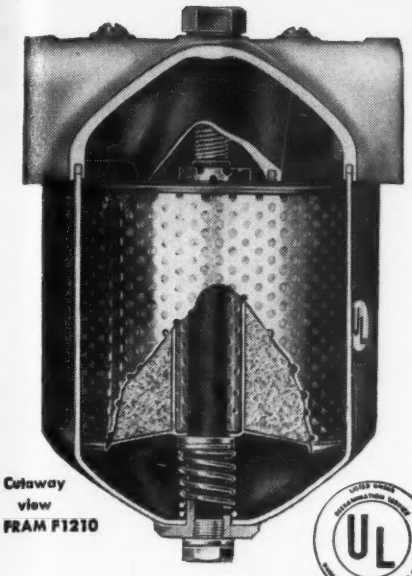

Cutaway view FRAM F1210

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FRAM FUEL OIL FILTERS

Filters the oil clean through an entirely new development • Removes dirt, rust, scale, water • Assures steady flow of clean oil to the burner • Protects pump valves and nozzles • Reduces service expense and needless, troublesome calls • Easy to install • Replacement cartridge builds repeat profits • Available in capacities of 2000, 4000, 6000 gallons of oil consumed per year. Send for complete details. Find out how you can profit with Fram.

FRAM FILTERS

MAIL COUPON NOW

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Please send me complete details about Fram Fuel Oil Filters for Oil Heating.

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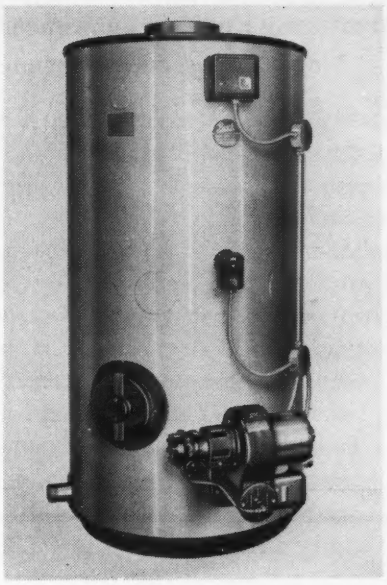
COMPANY_____

ADDRESS_____

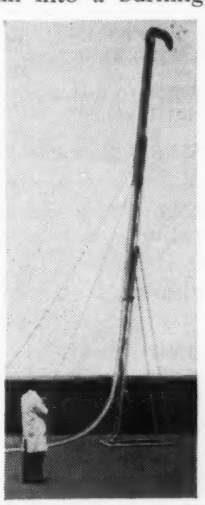


rated at 3 gph, has 2″ water connections and a 9″ smoke pipe. Shipping weight of the unit, which has a 100 gal. storage capacity, is 1800 lbs. Model 130E has 54 sq. ft. of heating surface, measures 32″ outside diameter and is 65″ high to the top cover.

Made by: Bock Corp., 110 S. Dickinson St., Madison, Wis.

Pyrene portable, tilting telescoping foam Tower

A PORTABLE DEVICE for discharging fire-smothering foam into a burning oil tank has been announced by Pyrene, combining the advantages of mobility over rough terrain, ease and speed of erection by 3 or 4 men and efficient delivery of large volumes of foam onto tanks up to 50 ft. high. Equipment is assembled in two sections, a base with screw-tilting gear mechanism and 4 spikes for rough ground and a telescoped 20 ft., 3-section tower with manual winch, two swivel-jointed push poles and stainless steel guy ropes. A 6″ foam column ends in a heat-resistant stainless steel discharge head.



The tower, made principally of aluminum, weighs 475 lbs. complete, can be carried manually or in a small truck. Assembly is accomplished in a

CONTROLLED DRAFT BY **field** BAROMETRIC CONTROLS

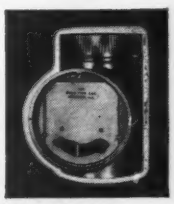
for automatic heating plants

FIELD TYPE M, first and finest for all types of automatic heating plants.

for hand fired furnaces

FIELD BAROCHEK, combination check damper and barometric draft control.

for stoves



FIELD R series and "SCOTTY", pre-set or adjustable, to bring out the finest in stoves and ranges.

for water heaters

FIELD RNA-W, pre-set precision made, the finishing touch to a fine water heater.

Nationally advertised IN BETTER HOMES & GARDENS

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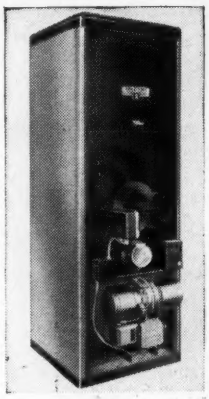
few minutes. A built-in or a forcing-type foam maker, with water capacity of 300 gpm, produces 2 to 3 thousand gpm of Pyrene air foam. The tower's tilting mechanism permits the discharge head to be moved forward 3 to 5 feet over the tank edge.

The equipment is recommended for protection of all storage tanks in an area where foam systems are not installed or where such systems may have been damaged by explosion.

Made by: Pyrene Mfg. Co., 560 Belmont St., Newark, N. J.

Armstrong Furnace announces new counterflow Furnace

A NEW 80,000 Btu oilfired counterflow winter air conditioner, announced by Armstrong is designed for basementless, one-floor plan homes, may be installed in closet or utility rooms and is particularly adaptable to perimeter, lateral sub-floor duct or floor panel heating systems. Armstrong's D4 oilburner, engineered for high efficiency at low firing rates and equipped with a Turbo-Regulator, fires the unit,



which features quiet operation of both the burner and blower.

This new furnace, model 8801 L7-80, has a welded, fume-tight heating element, with a wrap-around radiator for increased heating surface. At the top of the cabinet is a built-in air-tight filter rack to simplify installation. All parts can be inspected, cleaned and serviced from the front of the unit. Specifications are contained in sheet S-24.

Made by: Armstrong Furnace Co., Columbus, Ohio.

Watts relief Valve for domestic hot Water

TO PREVENT OVERHEATING in domestic hot water tanks, the Watts No. 40XL self-closing temperature and pressure relief valve discharges dangerously overheated water to allow cold water to enter the tank and cool it. The valve contains a disc which is opened by the expanded thermostat, allowing a temperature discharge at a greater Btu capacity than the firing means can generate.

A sensitive thermostat responds to excessive temperature conditions and expands to open the valve when water is too hot and contracts to self-close the valve after the tank water is cooled to a safe temperature, as if hot water were being drawn.

Made by: Watts Regulator Co., 10 Embankment Rd., Lawrence, Mass.

General Fittings Tee for baseboard Radiators

A SPECIAL TEE, developed by General Fittings, has been designed to permit simpler and better installations of fin-tube baseboard radiators. Tees are available in 1" and 1¼" sizes by ½" and ¾", for both supply and return line use, with the return fitting having a ready-tapped air vent opening.

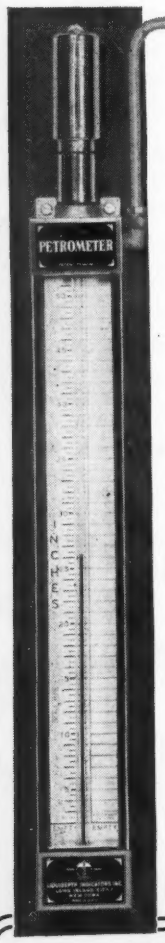
The supply line fitting allows room for installation of a straight-pattern

Make Every Installation

Competition-Proof . . . Install a

PETROMETER

Tank Gauge



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- **DIRECT READING DUAL SCALES:** Constant reading in inches and gallons. Always ready. Easy to read.
- **FLOOD PROOF:** Positive gauge protection when tank is overfilled. Automatic Red "X" fluid check.
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- **SCALE READINGS:** Adjustable to take care of tank pitch.
- **WARNING SIGNAL:** Red transparent plastic strip may be moved upward or downward. Warns when to re-order.
- **NEW LOOK:** Pleasingly compact—sturdy—dependable.
- **REMOTE READING:** The New Petrometer is simple to install and maintain. The gauge may be located any place above or below the level of the tank; up to ONE QUARTER MILE distant from the tank.
- **FLEXIBLE SCALES:** May be removed or adjusted easily. Gallon conversion figures may be typed on scale.
- **APPROVED BY:** Underwriters' Laboratories and Factory Mutual Laboratories.

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New Extruded Splined Type Guardian Flexible Coupling

Regular set screw type

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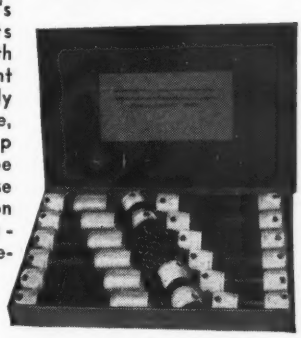
You'll see why there is such a growing demand for Guardian flexible couplings when you use them on your first installation. The new extruded splined type can be installed easily in nothing flat. It fits to close .001 inch tolerance. Ruggedly constructed and specially treated to resist oil, Guardian couplings give the utmost in trouble-free performance. A variety of standard sizes or to your specifications.

GET THIS CONVENIENT COMPLETE SERVICE KIT

97% of today's requirements can be met with the assortment in this handy kit. Get one, use it and keep it filled to be ready for those extra profits on flexible coupling replacements.



WRITE FOR BULLETINS on the Guardian line of valves for water, oil heat and radiant panel installations.

Guardian PRODUCTS CORP.
COUPLING DIVISION

Dept. F-121, 1215 East Second Street

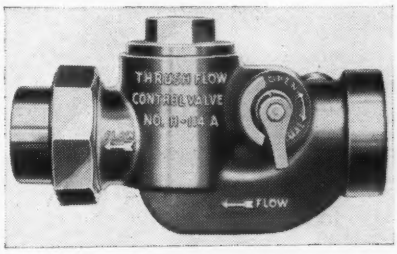
Michigan City, Indiana

union-type valve. Its stubbed-off riser opening extends only 1⅛" below the radiator centerline so that positive shutoff for each radiator can be supplied, without using damper-type covers. General recommends that the tees be installed in pairs, the vented type on the return end, unvented type on the supply end of each radiator in a system.

Made by: General Fittings Co., 123 Georgia Ave., Providence 5, R. I.

Thrush adds horizontal flow control Valves

THREE SIZES of horizontal flow control valves have been added to the Thrush line. The new models are available in 1", 1¼" and 1½" sizes, made with threaded inlet connection and union outlet. The valves can be used to advantage in basements with low ceilings since they can be installed



in a horizontal flow main, permitting the main to be carried near basement joists or ceiling.

For zoned installations, a flow control valve with vent tube is used at the boiler and each zone has a horizontal flow control valve located at any point in the building nearest the zone being supplied. The new types incorporate the same time-tested working parts used in Thrush's angle and vertical models. In addition, the horizontal flow control valves have a ½" tank tapping near the inlet to take air

IT PAYS TO REMEMBER!

EVERY OIL-BURNING UNIT NEEDS a Klemm FUEL OIL FILTER

Easy to Install . . . Big Market

Good Profit . . . Repeat Sales

You know better than anyone else how few oil-fired boilers, space heaters, hot water tanks, etc. are equiped with oil filters. Here's a ready-made market—*a profitable market*—for you to go after. Suggest a fuel oil filter on every service call, a high-efficiency KLEMM, of course—the only filter that has CHEMISTONE, the original controlled porosity filter element. Sell heating comfort . . . sell KLEMM! Easy sales! Good mark-up! Satisfied customers!

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TELLS . . .
SELLS . . .

Drop-in customers and shoppers are attracted by this eye-catching display. It's free with each order for 12 or more Klemm (Jr. Model) Oil Filters. Put it to work for you!

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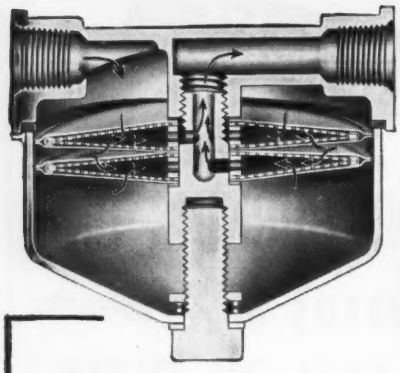
Export Div.: Guiterman Co., Inc. 35 S. Williams St., New York, N. Y.



CLEAN FUEL OIL THE SPARKLER WAY

. . . means less burner trouble

. . . fewer call-backs for you

Boost your profits, keep your customers happy, and save needless work for yourself by installing a Sparkler Fuel Oil Filter on every oil burner you service.

The Sparkler Model OB is a *positive* filter because oil cannot by-pass the filtering element. When oil reaches the burner nozzle, you know that all sediment (even micro-size particles) and water have been removed. The burner works more efficiently and your customers need not worry about emergency calls.

And whenever you service a Sparkler-equipped burner, don't take chances by leaving the old discs in the unit. Install a new cartridge. It takes less than a minute, gives you a profit-making sale and protects your customer.

There's a size for every installation

Write for complete details

SPARKLER horizontal plate FILTERS

SPARKLER MANUFACTURING CO., Mundelein, Illinois

Manufacturers of precision filtration equipment for more than a quarter of a century.

. . . . New Products

directly out of the main into a pressure tank or to an automatic air vent.

Made by: H. A. Thrush & Co., Peru, Indiana.

Lee redesigns Line of direct-fired space Heaters

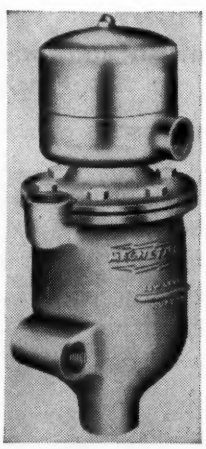
THE LEE model HD oilfired space heaters, available in ten sizes with capacities up to 2 million Btu, have been redesigned. The units may be fired with light or heavy fueloil, mount in any position and distribute heated air with ducts or distribution valves on top of the unit. Design of the units embodies counter-current air and gas travel, and a refractory chamber.

S. T. Johnson type AVH horizontal rotary cup oilburners are used to fire the larger units; S. T. Johnson Bank-heat gun burners, flange-mounted, are furnished with light oil models.

Made by: Lee Corp., 1001 Tatnall St., Wilmington, Dela.

Water Level Control for Low Pressure Boilers

FOR BOILERS IN THE LOW pressure field operating at steam pressures up to 25 lbs., Magnetrol has introduced a new single stage Model #26 controller. This control can be used for fuel cut-off and alarm; for fuel cut-off only; or alarm only, as desired. Operation involves only two moving elements, the switch mechanism and float assembly. The former consists of a permanent Alnico bar magnet and pole pieces attached to a bracket which holds a mercury switch.

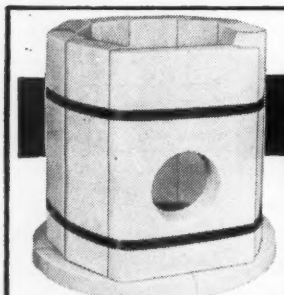


Assembly is balanced on pivot points so that the pole pieces move up and down as switch assembly rocks on its pivots. It is actuated by a magnetic stainless steel sleeve connected to upper end of a stem attached to a seamless copper float. The magnetic sleeve moves up and down within pressure tight enclosing tube. No stuffing boxes, bellows, diaphragms, or relays are used. Unit is compact, measuring 8¾" in height and 4" in dia.

Made by: Magnetrol, Inc., 2210 S. Marshall Blvd., Chicago, Ill.

Buckeye Strainers for fueloil Deliveries

TWO FUEL STRAINERS of the slip-in slip-out type have been developed by Buckeye for clean fuel deliveries. Finger-tip pressure is all that is needed to slip the strainer cone in or out of the machined strainer body and the strainer cap threads on or off by hand, with a gasket provided to prevent leakage of liquid or fumes. Both are



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AMERICAN COMBUSTION CHAMBERS

100% "KILN-CURED" LIGHTWEIGHT REFRACTORIES

HIGH QUALITY

American Chambers are made from the finest, high grade refractory materials combined with proper "Kiln-curing". They will withstand 2500 degree temperatures and will not crumble in water.

EASY INSTALLATION

Controlled manufacturing and careful design of American Chambers makes for fast and easy installation. The flexible pieces fit together with a minimum of effort.

TOP PERFORMANCE

Because of the high quality of materials used in American Chambers they provide faster heat-ups, quieter burner operation and savings in fuel.

Equipment manufacturers are invited to bring their special design problems to us.

JOBBERS: Write today for price sheet.

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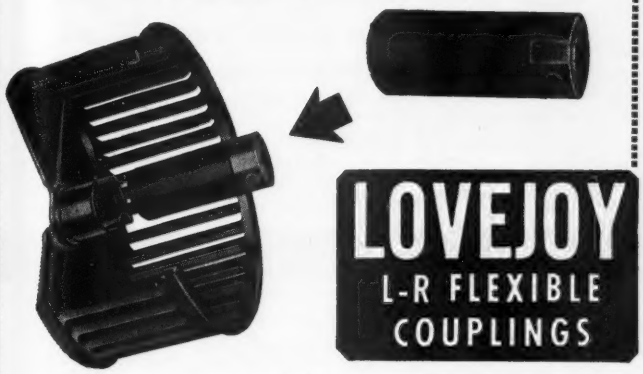
WHY LOVEJOY L-R IS THE LOGICAL COUPLING TO USE ON FANS, PUMPS & BLOWERS



1. They operate more quietly.
2. They counteract greater misalignment . . . rubber center unit increases flexibility.
3. They do a better job of counteracting vibration, backlash and surge.
4. They are easy to install . . . even in dark and close quarters.
5. Most fan manufacturers supply blowers with L-R jaws on blower hubs.

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Also Mfrs. Lovejoy Universal Joints and Lovejoy Variable Speed Transmissions

BIG BOILER BUY!

40% off

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410 Sq. Ft. D. C. I. & 540 Sq. Ft. D. C. I.

Act Now! Take advantage of 40% Price cut.

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Tubeless steel Boilers with extended Jackets

(Hot Water Coils Available)

NATIONAL COMBUSTION CO.

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★ *Manufacture of these Boilers have been discontinued temporarily due to material shortages.*

worth looking into

The RIGHT design, the RIGHT materials, the RIGHT workmanship combine to give you the oil burner with dependable performance. KORTH Burners STAY sold, prevent your profits from melting away in expensive service calls.

- A SIZE FOR EVERY JOB • CAPACITY .75 TO 20 G.P.H.
- ADAPTOR FLANGES TO FIT BOILER OR FURNACE UNITS
- GE OR OHIO MOTOR • MH CONTROLS

SOLD THROUGH JOBBERS AND DEALERS
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ECKHART MFG. CO. INC.
UNION, NEW JERSEY

PROFIT BY SELLING HEATING COMFORT!

GORTON VALVES

With GORTON VALVES every radiator is made to heat EVENLY and QUICKLY with OUNCES of vapor . . . instead of POUNDS of pressure.

Above: For steam mains and unit heaters.

At right: For radiators.

WRITE TODAY FOR LITERATURE AND PRICES

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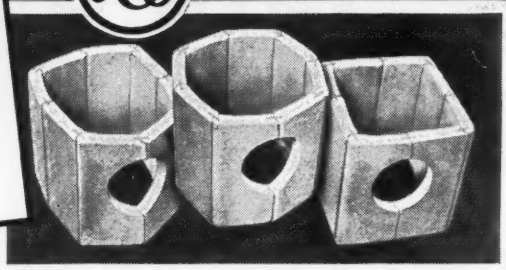
CRANFORD • NEW JERSEY

CHOOSE YOUR SHAPE for Any Style Furnace or Burner

from ONE Complete – Convenient Carton

R&I COMBUSTION CHAMBER



- Easy to Handle and Install
- Fast Heating • Quiet • Efficient
- Gives Up Stored Heat Gradually
- One Safe Package Has Everything for Any Shape Chamber

Many thousands of these better quality, longer lasting R & I Refractory Chambers are giving real customer satisfaction. Your supply house has them. Try them—and save on installation costs.

Write for Free Copy of "Better Combustion Chambers"

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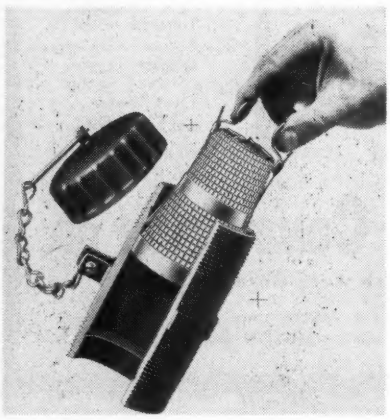

available in 2½" and 3" sizes.

The No. 872 inlet strainer is designed for permanent installation at the end of tank fill pipes in bulk plants; the No. 872T outlet strainer, illustrated, is for permanent coupling to the unloading pipes of tank trucks. Both have 14-mesh galvanized wire strainer cones for full flow, that prevent passage of rust scale, dirt or other harmful matter.

Made by: Buckeye Iron & Brass Works, P. O. Box 883, Dayton 1, Ohio.

SONOAIRDUCT for Hot Air Heating

A NEW DEVELOPMENT for hot air heating systems is a fibre duct which when embedded in concrete floor slabs is used as a supply or return line in radial or perimeter hot air heating with gas or oil furnaces. As such its use is permitted by FHA. The trade name is SONOAIRDUCT, an excellent substitute for metal, glazed tile, or concrete blocks.

It has a high crushing strength, will stand a lot of rough handling and weathering. It is available in lengths up to 25 feet and in any inside diameter from 2" to 24". Cutting can be done with a hand saw or a power saw. Bends, elbows, T's or other accessories cannot be made economically from paper or fibre, therefore it is recommended that metal accessories be used with SONOAIRDUCTS. Fibre collars, 12 inches in length, are available for use in joining long or straight runs.

Made by: Sonoco Products, Hartsville, S. C.

Readers' Forum

TACO HEATERS, INC.
Providence 3, R. I.

Editor:

On page 128 of the November issue of FUELOIL & OIL HEAT one of the Readers' Problems concerns cold water leaking through a mixing valve. In your answer you indicate that mixing valves do not close dead tight.

We would like to call your attention to the fact that in our mixing valves the cold water port is tight except when the temperature passing through the valve is above its setting. In other words, our valve is designed so that it is always open to the hot water which controls the opening and closing of the cold water port. The purpose of this design is to prevent the addition of cold water when after extended usage the hot water drops to a point below the setting.

J. BALTER, *Manager Advertising & Product Development*

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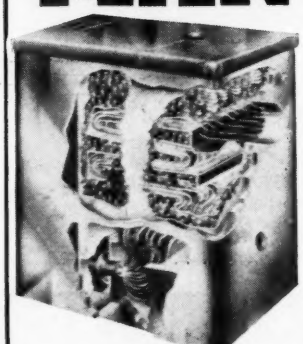

Improved TUBELESS NON-PULSATING GAS OR OIL FIRED BOILER UNIT

U. S. Patent No. 2575723

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MANVILLE BOILER CO., INC.
415 Lexington Ave., New York 17, N.Y.

Convertible to Coal Firing in Emergency

SKINNER V2-type VALVE

★ relief
★ shut-off
★ drip-eliminator

OUTSTANDING PERFORMANCE & ECONOMY

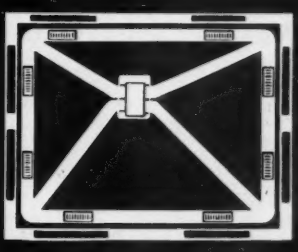
On original oil burner equipment or for service replacement, new standards of performance are yours with the low-cost Skinner V2 Solenoid Valve! Sturdy steel parts are plated to resist corrosion — compact — weighs only 9 oz. — usable in any position! Soft synthetic seat and seals prevent leakage, and spring loading assures positive operation. There are no brazed, welded, soldered pressure joints, or threaded parts to loosen under vibration. Maximum pressure is 125 P.S.I. — rated at 10 watts max. — Underwriters' approved. Relief model is 2 way, normally open. Drip-eliminator or shut-off is 2 way, normally closed.

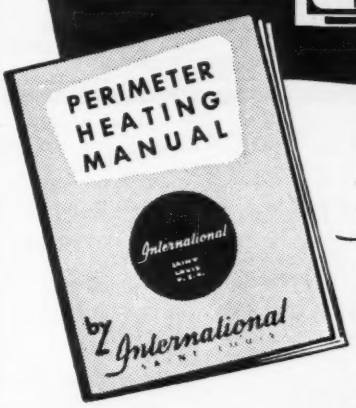
Write for details and low prices!

Skinner ELECTRIC VALVE DIV.
THE SKINNER CHUCK COMPANY
141 Belden Ave., Norwalk, Conn.

PERIMETER HEATING MANUAL

FREE for DEALER





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International SAINT LOUIS

An informative brochure on the new method of heating that is taking the nation by storm . . . every dealer should have a copy . . . it's packed with installation short-cuts . . . pertinent planning and estimating data. (Written especially for you by the originators and developers of perimeter heating).

RESERVE YOUR FREE COPY TODAY!
Please make request on your letterhead.

International OIL BURNER CO., 3834 PARK AVE.
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For SALES and SERVICE on
VIKING ROTARY PUMPS
Call Your Nearest
VIKING REPRESENTATIVE

The Viking Pump Company is represented by a nation-wide sales and service organization in key cities from coast to coast . . . from Canada to the Gulf. Is your pumping installation operating at high efficiency? Do you have a pump maintenance problem? Do you have a new pumping application? Write or call the Viking representative nearest your plant for service.

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AN HONORED NAME IN PUMPING

Viking PUMP COMPANY Cedar Falls, Iowa
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FOR PROFITS!

ASK THE R&M MAN TO CHECK YOUR PLANT NOW!

You can't afford to have a single piece of inefficient, money-wasting equipment — not with today's tight margins and soaring costs! Ask the R & M man to check your plant now and make recommendations.

RENICK & MAHONEY, INC.
Complete Equipment for the Oil Trade
114 · LIBERTY STREET
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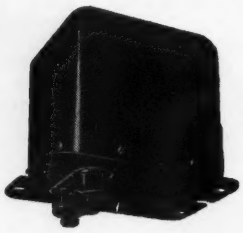
R&M SERVICE

DONGAN TRANSFORMERS

Used on Leading Makes of Oil Burners

The first of all transformers to be listed by the Underwriters' Laboratories as standard for oil-burner ignition, Dongan Transformers have long been used on leading makes of oil burners. For long life and dependable service, you can't beat a Dongan!



Voltages from 5,000 to 20,000. A variety of sizes and mountings.

WRITE FOR *Literature*

Dongan Electric Manufacturing Co.
2981 Franklin Detroit 7, Mich.
"The Dongan Line Since 1909"

MORE AND MORE DEALERS ARE SWITCHING TO

HEIL

Automatic Heat

Write The Heil Co., Milwaukee 1, Wis.

Oilheating Trends

(*Begins on page 12*)

total billing of the previous 5.1 weeks. A year ago these were equal to 6.2 weeks. On that basis there has been a very significant improvement. A check was then made to learn whether the large or the small dealers were having more trouble on collections. There was almost no difference. The dealers above average size had receivables on November 1 equal to 5.2 weeks, indicating that the dealers below average size were doing a slightly better job with credit activities.

Asked whether the dealer has access to association credit files or any other type of outside ratings on new customers, 89% report that they do; 11% do not.

TRUCK PUMPS: After running the question last month on the types of pumps used in bulk plants, one dealer asked that we check this month on the types used on trucks. Among all reporting fueloil distributors we find that 88% of their truck pumps are of the rotary type and 12% are centrifugal.

FUELOIL STOCKS: Stocks of No. 2 fueloils at refineries, terminals, and in transit East of the Rockies on November 3 were 92,091,000 barrels. This compares with 72,959,000 barrels on the corresponding date a year ago. This shows a rise of 26%, and indicates a generally comfortable position.

DEALER COMMENTS: Typical comments on questions of the month are these . . . "Business is good; many new houses being started; looks like a good winter" . . . "How do you get salesmen to canvass?" . . . "We have found that a good installation at a premium price gets us better fueloil accounts, hence better credit risks" . . . "We are unable to get galvanized or aluminum sheets" . . . "Our electrician is giving us a hard time, claiming that regulations have caused a price rise for wiring" . . . "We have had quotations on tanks at $38" . . . "Cost of labor is terrific; with prices frozen we have a real operating problem" . . . "With the price of materials going up every day how can one give the OPS any prices," . . . "Dual-fuel burners about done here; not satisfactory."

Replacement Selling

(*Begins on page 45*)

the old burner from the new one and divide the overall efficiency of the new one into the difference of efficiency between the two. The result is the actual percentage of fuel savings. In our example, you would divide 63% into 18% with a resultant fuel saving of 28.5%.

If you feel, after making the survey, that you can safely recommend a new heating plant, its manufacturer will undoubtedly give you an estimate of the overall efficiency to use in this calculation.

Once you have been able to establish these facts you are ready for your closing arguments. First go over the survey form with the prospect in detail, showing the exact savings that you can promise him with a new burner or heating plant—THEN TRY FOR A CLOSE.

When you are certain that the prospect understands the possible fuel savings, go over the product presentation with him, so that he can understand how these savings are possible. Tell him and show him the engineering factors

Instant Steam

FROM A SIZZLING HOT PAN...THE MOST EFFICIENT, MOST DEPENDABLE WAY TO PUT MOISTURE IN THE AIR

With the AUTOMATIC HUMIDIFIER water drips into pan only after pan is hot. Each drop sizzles into steam as it strikes heated pan surface. Puts the most moisture into air stream when it is MOST NEEDED.

- NO STAGNANT POOL TO REHEAT
- SUPER-SENSITIVE THERMOSTAT
- OUTSIDE SCREW ADJUSTER
- EASY INSTALLATION
- ONE KIT TO PURCHASE

Write TODAY for FREE information. FO-121

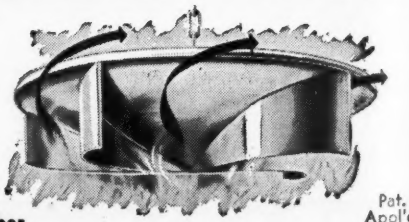
AUTOMATIC HUMIDIFIER CO.
CEDAR FALLS, IOWA

THERMO DRIP *Automatic* HUMIDIFIER

DON'T JUST BAFFLE! GET SWIRLING ACTION TOO-

Every Conversion needs a FIRE-SWIRL BAFFLE.

Get the facts, clip this to your letterhead, or see your jobber.



Pat. Appl'd For

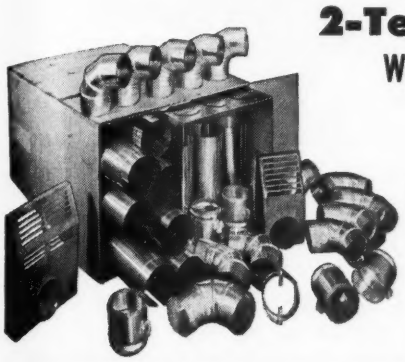
FIRE-SWIRL ZEH COMPANY INC., PASSAIC, N.J.

GENERAL Automatic

TWO to get ready profits

1-FLOORLEVEL
HOT WATER BASEBOARD

A complete hot water heating system, all in one package.



2-Temp RD AIR
WARM AIR HEAT

Warm Air installation packaged complete for profits.

GENERAL AUTOMATIC PRODUCTS CORP.
2300 Sinclair Lane — Baltimore 13, Md.

Nozzle TIPS

How to Prevent Nozzle Clogging Caused By Sludge

DELAVAN SLUDGE SOLVENT

WITH EVERY REFILL

Some call it fuel oil *additive;* some *detergent;* some *inhibitor.* Call it what you will, DELAVAN SLUDGE SOLVENT will prevent nozzle and filter plugging from sludge. DELAVAN SLUDGE SOLVENT disperses sludge; emulsifies water. 100% active. No filler.

WRITE FOR BULLETIN 248

DELAVAN
MANUFACTURING CO.
3009 SIXTH AVE., DES MOINES 13, IOWA

Worth looking into!
Worth hearing about!

QUICK HEAT **LITE-CAST** LONG LIFE

A COMPLETE LINE OF
COMBUSTION CHAMBERS
FOR EVERY TYPE OF INSTALLATION

SQUARE

ANY SHAPE

ROUND

● Every chamber packed as a complete package in sturdy fibre boxes.

● Valuable literature to help manufacturers, jobbers, dealers, and contractors. Illustrated catalog, chamber reference table book, counter or wall card, direct by mail folders and specification sheets.

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SOLD BY LEADING JOBBERS NATIONALLY
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ALL ANYBODY NEEDS TO KNOW

NUMBERS COUNT IN GALLONS

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APPLIED MECHANICS COMPANY
167 OLIVER STREET, BOSTON 10, MASSACHUSETTS

The Oldest Name in Heating

1850 101 Thatcher Years 1951

WARM AIR HEATING FOR
OIL • GAS • COAL

Thatcher
FURNACE COMPANY
Specialists in heating Since 1850

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A. R. Webber Co. Inc., Has

EVERYTHING FOR THE HEATING And OIL BURNER TRADE

FREE! Write for Webber's 1951-1952 Catalog. It's Fully Illustrated and Priced.

A. R. WEBBER CO., INC.
424 Howard Ave., New Haven, Conn.

of this product which make these savings possible and which create the high efficiency—THEN TRY AGAIN FOR A CLOSE.

Then tell him the rest of the story, see that he understands just what the new unit will bring him in comforts and luxuries in addition to the many savings. Point out that the modern unit will bring a new kind of temperature control that his old one can't possibly approach—THEN TRY ONCE MORE FOR A CLOSE.

Then tell him the dependability story. Remember that he is the owner of an old and probably troublesome product and that he really wants to know what your modern trouble-free product will do for him. Back your story up with testimonials and other proofs—KEEP ON TRYING FOR A CLOSE.

Finally bring in all of your closing arguments. The satisfied users, the photographs, your own company history and background, testimonials and —DON'T FORGET TO TRY FOR A CLOSE.

The best advice this writer can give you in regard to the replacement market is (a) recognize its size (b) locate it and pin point it (c) reach it by any one of several common sense methods (d) make an honest survey (e) keep on asking for the order—sooner or later you will get it.

CLOSING NOTE:

The writer makes no claim to originality. He is only certain that he did not invent the selling program as outlined above. He is equally certain, however, that if a retailing organization will intelligently apply this selling method, it will result in profitable winter business.

❖

Everett I. Flanders has succeeded *Otto V. T. Urban* as director of education, Oil-Heat Institute of New England, Boston 15, Mass. Urban, who has been directing the Institute's program of oilburner service training for the past six years, has found it necessary to resign for reasons of health. Flanders took over on November 16, with Urban continuing until the end of the year in an advisory capacity.

Oilheating Outlook

(*Begins on page 50*)

Average weekly earnings are at a peak level—far above those of recent years and more than double those of 1941. They are now about $65 a week, compared with $62.69 a week in the fourth quarter of 1950, $59.23 for the year 1950, $43.74 for the year 1946 and $29.58 for the year 1941.

Personal savings, meanwhile, are being accumulated at an annual rate of $22,000,000,000, the highest rate since World War II days, when there wasn't much of anything around to buy. New tax increases on individual incomes will not amount to much for 1951, as they affect no more than one-quarter of the year's income.

As an indication of the buying power available for both the new market and the modernization market for oilburners, people's total savings now exceed $200,000,000,000, including currency and bank deposits, other liquid assets in savings and loan associations, insurance cash-in value, and U. S. and other securities.

AMPION CARBOLITE

cuts out furnace soot

Acts fast to destroy soot and fire scale in oil, coal, and automatic stokers. Quick sales, generous profits, handy 8 oz. gun and 3¾ lb. refill package. Also available: FUELTONE, for smoother oil burner operation; SEALEAK, permanently seals leaks in boilers; AQUATONE, for rust, scale and boiler sludge. Display cards, circulars and ad mats, FREE.

AMPION CORPORATION
4-88 47th Avenue, Long Island City, New York

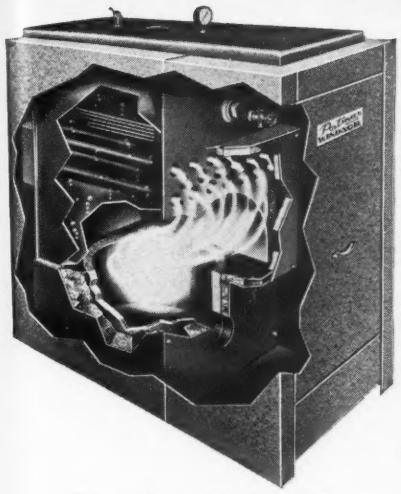
ESTIMATING MANUAL FOR HEATING AND PIPING SYSTEMS

The aim of this manual is to provide practical labor data to those who are concerned with estimating the cost of assembling, fabricating, installing the material required for the construction of heating and piping systems in the building industry.
Much of the material presented in the manual is based upon the experience of others engaged in the heating and piping industry, many of whom have expressed their knowledge of the subject through the medium of articles published in various trade papers and otherwise made available over a period of years. 112 pages. Contains diagrams and many tables. By Harry A. Erickson.

$3.

HEATING PUBLISHERS, Inc.
232 Madison Ave. New York 16, N. Y.

PORTMAR "WINDSOR" SERIES BOILERS



Steam from 400 to 2200 sq. ft. Hot water from 640 to 3520 sq. ft.

Check these features:

- **Combined boiler and hot water heater.**
- **Tastefully designed jackets.**
- **Built for oil or gas firing.**
- **Maximum efficiency in both utilities.**
- **Large furnace volume.**

Complete line of Vertical Series boilers also available—320 to 1100 sq. ft. steam, 510 to 1760 sq. ft. hot water.

SEND FOR FULL DETAILS AND PRICES NOW!

PORTMAR BOILER CO., INC.
193 - 7th STREET BROOKLYN 15, N.Y.

CERAMIC REFRACTORIES

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The Gem Clay Forming Company

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Established 1907

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PREFERRED
DRAFT-A-JUSTORS

Cut Fuel Consumption by 10% TO 30%

The *Preferred* Draft-A-Justor is the original, patented Draft-A-Justor . . . improved to include the latest in engineering developments.

Stainless steel bearings and weather resistant metals provide long-life service without breakdown due to rust or wear . . . assure *continuous* fuel savings.

Millions now in satisfactory use.

WRITE FOR DESCRIPTIVE LITERATURE AND TRADE PRICES.

SIZES

Store, domestic and commercial sizes from 4" to 24" in diameter.

Industrial sizes from 2' x 2' to 5' x 12'.

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Fewer Service Calls...
More Profit...
Complete Factory Cooperation

Write Today for Details on REXOIL'S Dealer Plans
You'll never regret the close relationship Rexoil offers

REIF-REXOIL, INC.
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Positive DRAFT CONTROL

BY THERMCAP

AT CHIMNEY TOP • THE PROPER PLACE

Keeping flues dry—clean—safe
Saves up to MUCH fuel, all kinds

Profitable dealer offer

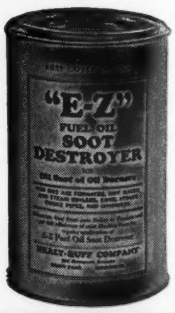
WIGWAM FLUE TOP COMPANY
Abington, Mass.

E-Z Soot Destroyer

For fueloil soot only. E-Z does a thorough, safe job with just one application. With a can of E-Z on the service truck, many cleaning jobs can be done at a very good profit. If your distributor cannot supply you, order direct.

No. 1 Pkg. Approx. 1 lb. . . .List $1.00 Ea.
No. 5 Pkg. Approx. 5 lbs. . .List $4.50 Ea.
Liberal Discount to bona fide Servicemen.

Special discount to distributors on quantity purchases, allows for extending regular discount to dealers and servicemen.



HEALY-RUFF Company
797 Hampden Ave., St. Paul 4, Minn.

It appears to be a great background for sales, particularly conversions, since restrictions are retarding new home building. Psychologically, however, the Board believes that many of these potential buyers are bitten by the lackadaisical bug of waiting and procrastination. Previous anticipatory buying of oilheating equipment is now considered by some to have been unnecessary, and psychology is now viewed as stacked against the seller.

The majority feeling of the Board is that those who believe that threats of shortages and inflation will sell their products are going to be disappointed, and strong advertising and selling efforts are considered prudent at this time. Many on the Board emphasize the uneconomic nature of not advertising heavily and believe that full advantage should be taken of the fact that advertising expenditures are a chargeoff prior to taxes and with rapidly mounting gross national product of the U. S., higher advertising costs are proportionately justified.

The preceding facts, figures and estimates of the Board of Analysts of Future Sales Ratings represent the framework of thinking which has brought a top, five-star rating for the oilburner industry in 1952.

❖

Edward F. Ford has been added to the sales division, Bell & Gossett Co., Morton Grove, Ill. Ford, who has been active in the heating equipment industry for the past 16 years, had been in charge of marketing and promotion of C. A. Dunham Company's government and defense contracts division for three and a half years and before that was sales manager of its central and Pacific divisions. Earlier he had been with the Kehm Corp., Chicago heating manufacturer.

Orville D. Judd, who has been functioning as the Chief of the Petroleum Branch, Office of Price Stabilization, Washington, D. C., left the branch on December 1 and joined Sinclair Oil Corp. as its Washington representative.

John D. Landerman has been placed in charge of the Shell Head Sales Div., Modern Die & Machine Co., Boston, Mass. Landerman announced that last year 58 oilburner manufacturers equipped their burners with Shell-designed combustion heads, made by Modern Die & Machine.

Dwight F. Benton, recently was elected vice-president in charge of sales of Standard Oil Co. (Ind), Chicago 80, Ill., succeeding *R. F. Baity,* who died on September 30. Benton, former general manager of sales, joined Standard in 1923 as a member of the first sales engineering school at its Whiting, Ind., refinery.

John M. Shephard, president and founder of Shephard Heater Co., Terre Haute, Ind., died on November 7. The firm produces a line of boiler-burner units and water heaters.

NOW OFF THE PRESS —

BEACON BOILER REFERENCE BOOK

SECOND EDITION . . . THIRD PRINTING

gives facts on more than 10,000

This edition contains ratings and major specifications of boilers old and new. Complete, comprehensive. More than 5,000 boiler trade names. More than 250 makes.

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It contains ratings on domestic-heating boilers up to 2,000 square feet. All ratings are taken from the MANUFACTURERS' own statements of specifications and technical information

Please Mail Remittance With Order!

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PROFIT NOW!

WITH

GRAND RAPIDS FURNACE CLEANERS

It's easy to get a lion's share of furnace cleaning profits when you use a Grand Rapids Furnace Cleaner. Greater cleaning capacity, handling ease and practically designed groups of furnace cleaning attachments help you give better service and clean more furnaces per day at a higher profit.

Act now! Write today for complete information and prices.

DOYLE VACUUM CLEANER CO.

233 Stevens St., S.W. Grand Rapids 7, Michigan

ORAN offers the unique **NEW DUAL-AIR** vaporizing burner in ALL Shallo-Well Oil Fired floor furnaces

Underwriters' Listed

Only 34" deep, NO GROUND CLEARANCE NEEDED!

Oran's amazing, new Dual-Air vaporizing burner is one of the greatest advancements ever made in vaporizing-type burners. This unique unit burns smoke-free, even under adverse draft conditions, with oil savings up to 15%!

There are four Oran Shallo-Well models for small homes, to meet climatic conditions anywhere in the nation.

- 50,000 BTU output—Natural draft
- 50,000 BTU output—Forced draft
- 65,000 BTU output—Forced draft
- 75,000 BTU output—Forced draft

WRITE US TODAY FOR COMPLETE INFORMATION ON THESE UNIQUE SHALLO-WELL OIL-FIRED FLOOR FURNACES!

ORAN COMPANY

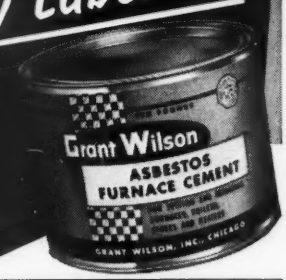
2210 S. Third St., Columbus 7, Ohio

ORAN

The same unfailing dependability...
The same ease of application...
The same economy...

but... **A Brand New Label...**

for Grant Wilson **ASBESTOS FURNACE CEMENT**



It's still *THE* furnace cement that's thoroughly fireproof, smokeless, odorless and acid proof. For a permanent seal, *every time,* specify Grant Wilson Furnace Cement by name.

To make this "DANGER ZONE" a "Safety Zone" get Grant Wilson Furnace Cement from your Jobber.

See for yourself . . . write for free Sample #139-J to Grant Wilson, Inc. 141 W. Jackson Blvd., Chicago 4, Ill.

Grant Wilson inc.
ASBESTOS and INSULATING MATERIALS

No. 440
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Sparky

(*Begins on page 58*)

policy, which brought it to $100,000, and which she told me just before she left for South America she hadn't figured on.

"She told me many times not to tell a soul about all this, because after what we'd been to each other people might start wondering if I was mixed up in it, was making murder my sideline. Then she always pressed both of my hands tenderly in hers."

"Anything more than hand-holding to what you'd been to each other?" I asked.

"No, come to think of it, no," Sparky answered. "But when such things are going on, you never can figure what they might work into."

❖

Donald R. Waugh has been promoted to the position of national supervisor of field operations, Oil Industry Information Committee, New York 20, N. Y. He had been district representative in charge of the New England district for four-and-a-half years and succeeds James S. Haskins, resigned. *John B. Goodman,* assistant district representative in the New York-New Jersey district, has succeeded Waugh. A second supervisory position has been created in the New York headquarters of the Committee, to be filled by *Ben Ames,* Cincinnati, who will act as assistant supervisor of field operations. *J. W. Lenon,* former assistant district representative in Kentucky-Ohio-Tennessee, succeeds Ames as district representative.

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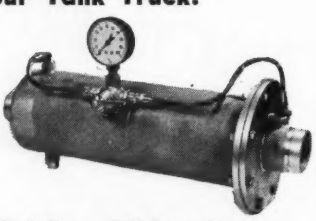

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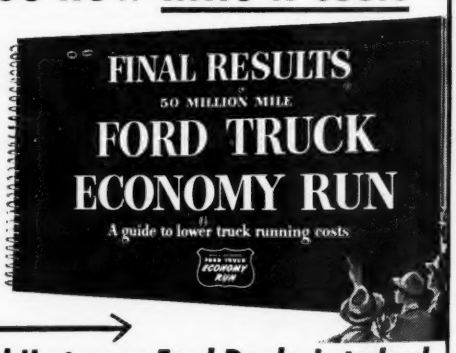

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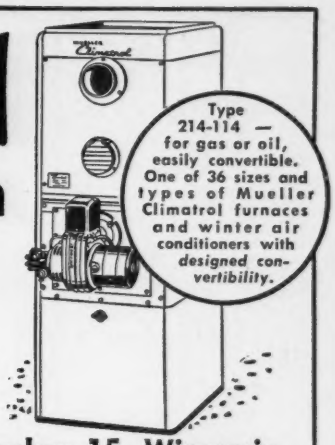
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ONE MONTH ONLY					SEASON TO DATE			
Normal	October 1950	October 1951	Percent Change*		(Sept. 1 to Oct. 31) Normal	1950	1951	Percent Change*
410	380	418	+ 1.9	Albany	526	595	591	+ 12.3
130	31	73	— 43.9	Atlanta	142	52	76	— 46.5
230	147	148	— 35.7	Baltimore	264	208	171	— 35.3
338	281	309	— 8.6	Boston	436	430	374	— 14.3
410	324	348	— 15.2	Buffalo	535	479	506	— 5.5
334	186	319	— 4.5	Chicago	418	227	410	— 2.0
274	110	191	— 30.3	Cincinnati	326	156	324	— 31.3
354	222	250	— 29.4	Cleveland	446	312	340	— 23.8
70	5	56	— 20.0	Dallas	75	5	56	— 25.4
415	119	488	+ 17.5	Denver	539	291	629	+ 16.6
357	204	403	+ 12.8	Des Moines	456	258	550	+ 20.6
387	284	332	— 14.3	Detroit	496	390	448	— 9.7
433	269	371	— 14.4	Grand Rapids	559	379	515	— 7.9
368	315	331	— 10.1	Hartford	474	498	432	— 8.9
601	528	730	+ 21.4	Helena	889	888	1118	+ 25.7
27	8	1	— 6.3	Houston	..	8	1	..
299	160	226	— 24.5	Indianapolis	364	221	295	— 19.0
242	116	278	+ 14.8	Kansas City	292	150	346	+ 18.0
43	2	14	— 67.5	Los Angeles	48	2	14	— 70.9
218	102	184	— 15.6	Louisville	252	140	222	— 12.0
409	293	440	+ 7.5	Milwaukee	529	406	621	+ 17.3
484	358	506	+ 4.5	Minneapolis	647	458	748	+ 15.6
23	0	7	— 69.6	New Orleans	..	0	7	..
274	174	212	— 22.7	New York	325	261	256	— 21.3
325	202	387	+ 19.0	Omaha	406	279	515	+ 26.8
235	166	170	— 27.7	Philadelphia	271	251	195	— 28.1
324	204	220	— 32.1	Pittsburgh	393	282	290	— 26.3
459	484	491	+ 6.9	Portland, Me.	638	796	686	+ 7.5
298	351	290	— 2.7	Portland, Ore.	407	441	337	— 17.2
363	272	277	— 23.7	Providence	467	435	348	— 25.5
232	142	190	— 18.2	Roanoke, Va.	278	233	228	— 18.0
218	102	211	— 3.3	St. Louis	254	127	250	— 1.6
377	177	396	+ 5.0	Salt Lake City	472	290	436	— 7.7
140	107	123	— 12.2	San Francisco	262	229	295	+ 12.5
614	534	615	+100.1	Sault Ste. Marie	895	862	978	+ 9.2
372	382	346	— 7.0	Seattle	546	510	456	— 16.5
369	281	325	— 12.0	Toledo	467	386	448	— 4.1
254	149	140	— 44.9	Washington	297	206	162	— 45.5

*Compared with normal.

Dwight T. Colley, vice president and general manager, domestic sales, The Atlantic Refining Co., Philadelphia, Pa., has been named vice-president and general manager of marketing, in a reorganization that combines the Foreign and Domestic Sales Departments under one general manager. *Frederick M. Neall,* manager of product sales and sales development in the Domestic Sales Department has been made general manager of foreign sales. Colley became associated with Atlantic in 1949 in New England.

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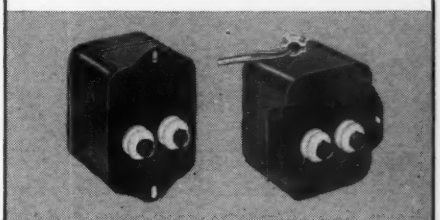

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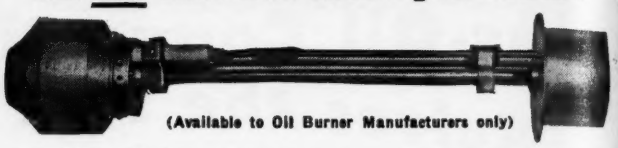

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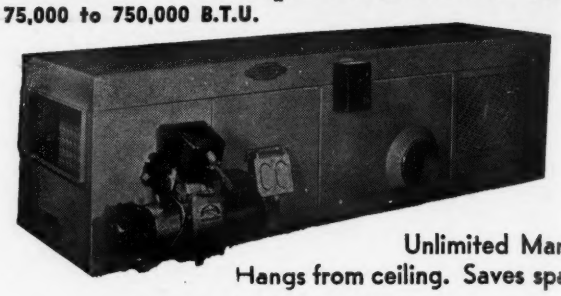

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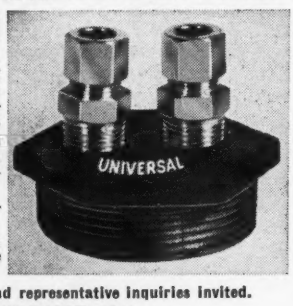
DUPLEX TANK BUSHING
FOR OIL SUCTION AND RETURN LINES

UNIVERSAL TANK BUSHING #750



Speed up fuel oil installations, cut installation costs by having the suction and return lines in the same tank opening. The UNIVERSAL TANK BUSHING #750 also contains a tapping on the underside of the suction opening to permit pipe installation directly into tank.
Sturdy Cast Iron Body; Standard Brass Fittings.
Sizes: ⅜"x⅜"x2"; ½"x½"x2"; ⅜"x½"x2". Tubing sizes are O.D.

Order from your jobber. Jobber and representative inquiries invited.

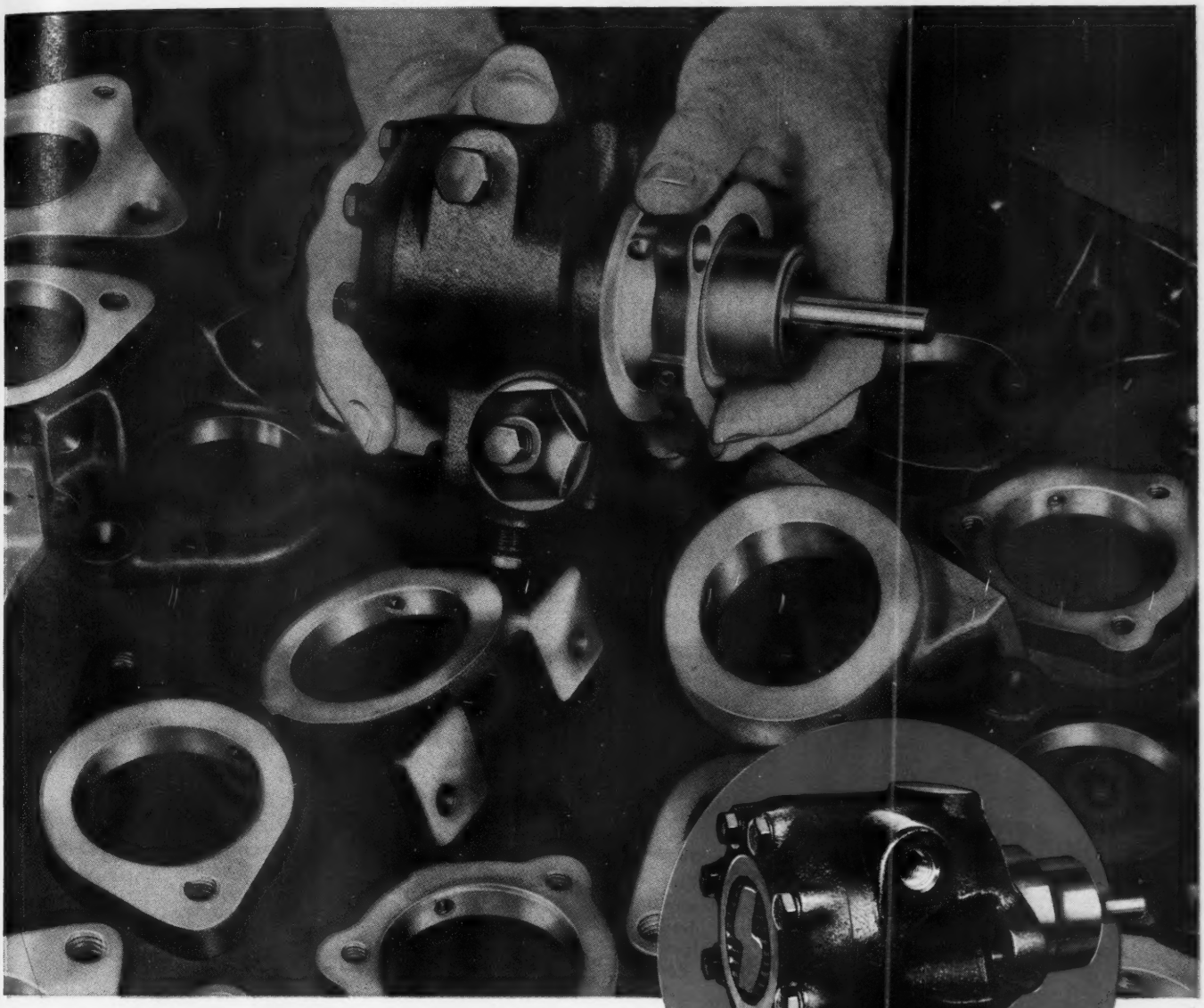
UNIVERSAL VALVE CO.
"Originators of the Union Check Valve"
P. O. BOX 444 ELIZABETH, N. J.

SOOT-GO SOOT DESTROYER

STILL THE BEST for cleaning oil and gas-fired heating plants.
EFFICIENT AND ECONOMICAL TO USE
ALSO:
SLUDGE-GO for Cleaning Fuel Oil Tanks and Will Emulsify Water.
EZ-E WELD for Sealing Leaky Boilers. No After Odor. No Draining.

Write for name of nearest jobber
KALMIDE CHEMICAL CO., INC.
17 East 42nd St. New York 17, N. Y.

• ANOTHER REASON WHY SUNDSTRAND IS *FIRST* IN FUEL UNITS •



Complete mounting flexibility . . . integral, bracket, or with adaptors

This photograph will help you visualize the remarkable mounting flexibility of the two new basic Sundstrand Fuel Units. Arrangements have been made in porting and mounting so that the new single- or two-stage units can be installed readily on any oil burner, new or old, with a minimum of fuss and bother. Mounting brackets can be supplied integral with the pump housing, or as separate units. In addition, adaptors or foot mountings for all sizes can be furnished for attaching the units to other mountings. Such interchangeable mounting is but one of dozens of reasons why you should standardize on Sundstrand for all new or replacement jobs. Get the complete story in Bulletin FO-12.

TWO BASIC MODELS SOLVE ALL FUEL UNIT PROBLEMS

It's true!—two new Sundstrand Fuel Units (single– or two-stage, with and without solenoid) give you exact capacity, exact mounting arrangements for all new equipment or replacement installations. Also available—modified units for transfer of gasoline.

SUNDSTRAND

SUNDSTRAND FUEL UNITS

SUNDSTRAND MACHINE TOOL CO.

HYDRAULIC DIVISION, ROCKFORD, ILL.

Made in Canada by John Inglis, Ltd., 14 Strachen Ave., Toronto

fueloil & oilheat

2nd in a series showing why "It pays to be an Oil-O-Matic Dealer"

YOU'RE OUT IN FRONT WITH

OIL-O-MATIC *Consumer Promotion!*

In the two vital ingredients for successful selling...superior product... and effective promotion, you, as an Oil-O-Matic Dealer, lead your field. You have the product with the strongest sales story...you have the most aggressive, the hardest-hitting program of promotions in the industry.

OIL-O-MATIC *Promotions* GET RESULTS

Oil-O-Matic's merchandising know-how is the result of thirty years of success in developing consumer promotions that *sell*. Oil-O-Matic knows who your best prospects are...where they live...how to reach them ...and *what will make them buy*. All this knowledge and experience works full time to create sales for *you*.

OIL-O-MATIC *Promotions* ARE STRATEGICALLY TIMED

They hit the market at the most productive times, all year round... making the most of peak buying periods...bridging seasonal slumps... building bigger profits for every Oil-O-Matic Dealer. They are *dynamic* promotions that get *immediate* sales action. They are *far-sighted*, too... designed to promote long-term good-will and produce sound, 4-season sales activity for *you*.

OIL-O-MATIC *Promotions* ARE UNIFORMLY EFFECTIVE

The success of Oil-O-Matic promotions is a matter of record. During the recent June-Unit Campaign, Oil-O-Matic Dealers sold *more* Furnace-Burner and Boiler-Burner Units than ever before in the history of the company. Here's *proof* of the power of Oil-O-Matic's brand of *planned* promotion. Here's a *promise* that these promotions will continue to make the Oil-O-Matic franchise the most valuable in the industry.

Ask any man who has an Oil-O-Matic franchise. He'll tell you this...
IT PAYS TO BE AN OIL-O-MATIC DEALER

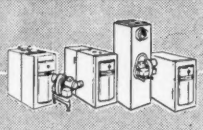
With OIL-O-MATIC HEATING

Write for complete information about the Oil-O-Matic franchise.

EW PRODUCTS

WILLIAMS OIL-O-MATIC DIVISION
Eureka Williams
CORPORATION
Bloomington, Illinois

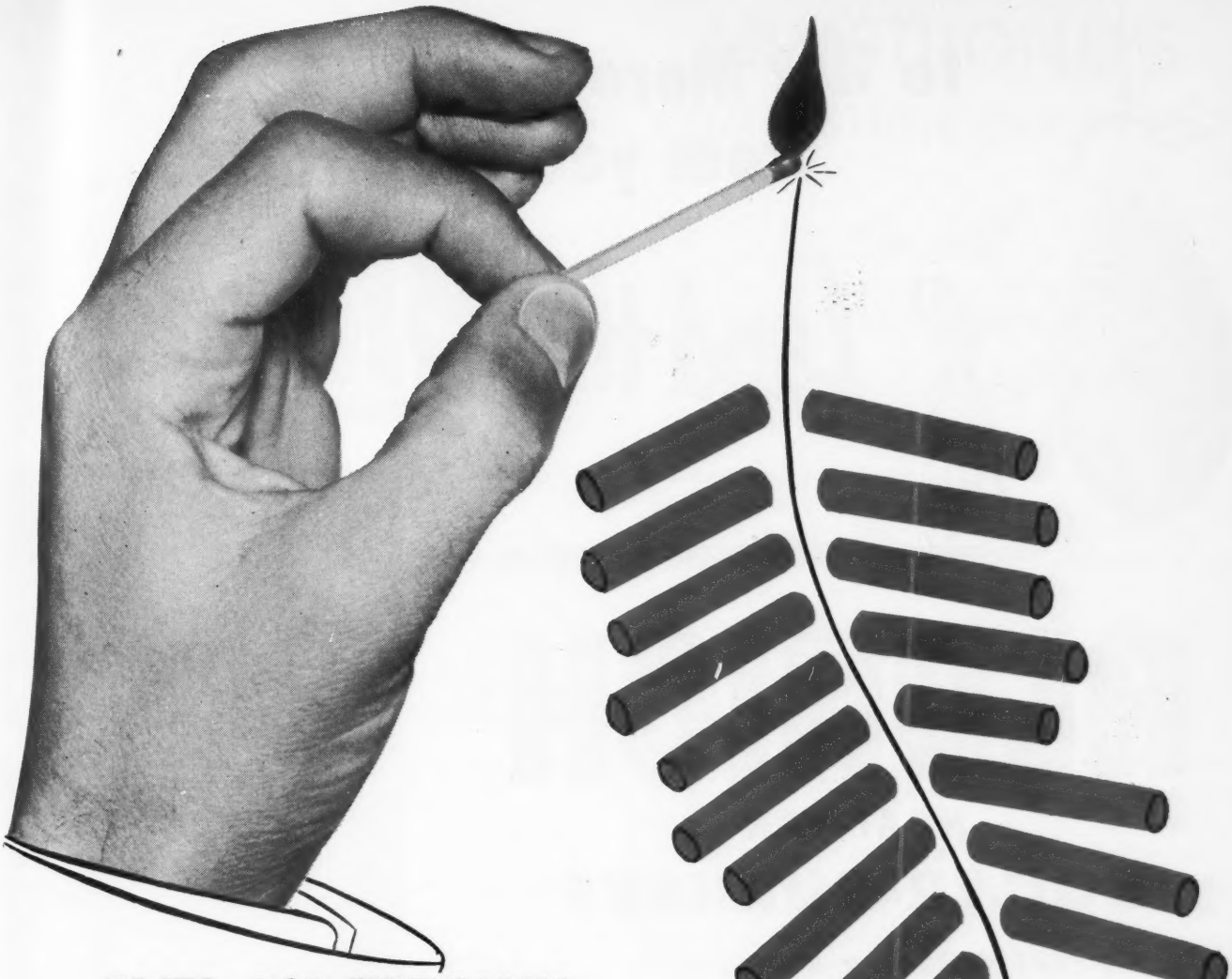
Better Products, Better Made... for better living!



OIL-O-MATIC Home Heating

EUREKA Vacuum Cleaners

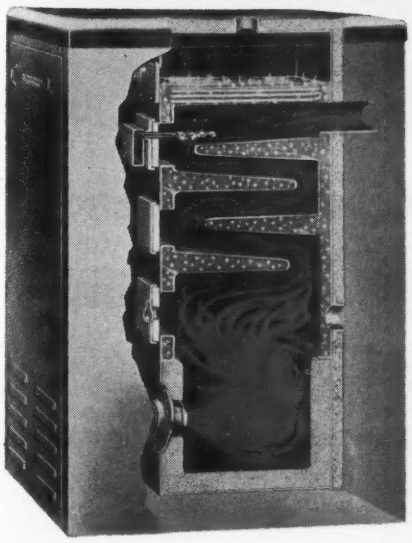
DISPOS-O-MATIC Waste Food Disposer



FACTS, NOT FIREWORKS, SELL MR. & MRS. AMERICA!

Easily Understood Features Sell

COLUMBIA



'Time-Proven' Boiler Burner Units

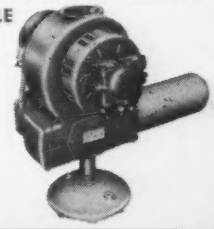
Homeowners are hep to gobledygook. They know that catch-phrases are cover-ups. When it comes to something as important as a boiler-burner unit, *they want it straight:*

- **What will it do for them?**
- **How long will it last?**
- **What is its performance record?**
- **How much will it cost?**
- **How good is its guarantee?**

Columbia features are easily explained and understood. They're practical benefits every homeowner wants. The *low price* rings a bell! The boiler carries a *factory-registered 5 year guarantee!* Columbia makes both the boiler and the burner, so there's *no divided responsibility!* There are *no tubes to clog or leak* — Columbia pioneered the tubeless boiler! The boiler plate is top quality — *full ¼" copper bearing!* And Columbia units have been "time-proven" for *low cost dependable operation in thousands of homes for over 20 years!*

YOU'LL FIND IT EASIER TO SELL COLUMBIA BOILER-BURNER UNITS . . . AND YOU'LL FIND IT MORE PROFITABLE

write for details today



Specify a COLUMBIA Oil Burner
on your next conversion job . . and make a friend of your customer.

Opportunity for Distributors:
A Few Choice Territories Open

COLUMBIA BOILER COMPANY
Manufacturers of Steel Power & Heating Boilers
Offices and Factory: Pottstown, Pa • Factory Branches: New York, Philadelphia, Baltimore and Richmond
DISTRIBUTORS IN PRINCIPAL CITIES

to Net More Profit from your Contracts...

land the BIG ones

ALDRICH

HEAT-PAK BOILER-BURNERS

- APARTMENTS
- RESTAURANTS
- FIRE HOUSES
- GARAGES
- RESIDENCES
- STORES
- DEFENSE PLANTS
- MUNICIPAL BUILDINGS
- CHURCHES
- MOTELS

The big jobs net the high profits. To land those big contracts, make your bid with Aldrich Heat-Pak Boiler-Burners. It's the logical line to push for any size steam or hot water system — in seven sizes, delivering up to 808,000 BTU per hour. Engineered for fuel-saving *complete* combustion, with vertical fire-tube boilers for highest efficiency. Aldrich units come shipped *complete,* ready to set in place and connect. And for a sales clincher how's this: Boilers when specified can be furnished with interchangeable oil or gas burner provision at no extra charge permitting ready conversion in the field. Write for details today, furnishing name of nearest jobber.

Jobber inquiries invited

ALDRICH HEAT-PAK PRODUCTS

ANOTHER BREEZE MARK PRODUCT

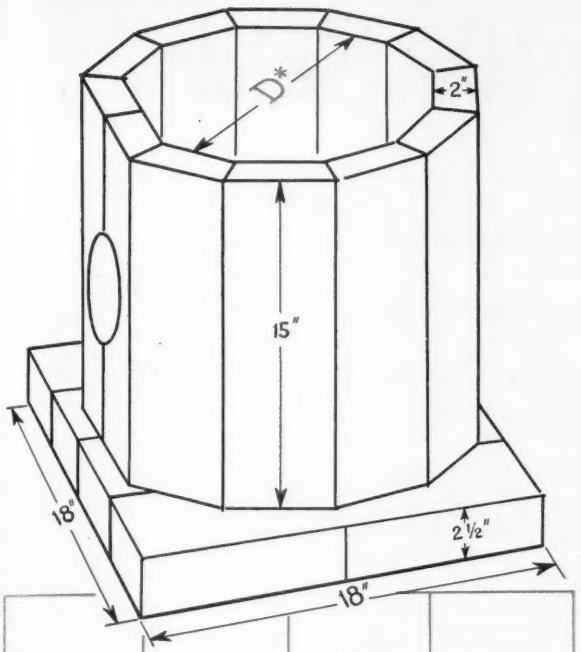
the ALDRICH Company

103 Williams Street, Wyoming, Illinois

A subsidiary of Breeze Corporations, Inc.

ARMSTRONG'S
COMBUSTION CHAMBERS

- *Easy to sell*
- *Easy to install*
- *Economical to operate*



CHAMBER NO.	GALS. PER HOUR	AREA OF COMBUSTION CHAMBER SQ. IN.	INSIDE BRICK DIAMETER "D"
1	1.0 -1.35	96	11¼"
2	1.35-1.65	130	13"
3	1.65-2.0	156	14¼"

*This is the only dimension that changes with chamber size.

An Armstrong's Combustion Chamber makes any oil burner perform better, and that makes these chambers easy to sell. Their high efficiency, coupled with a dependable brand name like "Armstrong," provides you with a really convincing sales story.

Armstrong's Combustion Chambers offer many operating advantages and give long, trouble-free service. They get hotter in 3 minutes than heavy fire brick chambers do in 30. Faster heat-up means higher CO_2 readings—less smoke and oily odor. Because these insulating fire brick are porous, they act acoustically to absorb most of the noise caused by normal burner roar.

Your workmen can install Armstrong's Combustion Chambers quickly. Lightweight Armstrong Fire Brick are easy to handle, weigh only 1/3 as much as ordinary fire brick. The factory-cut pieces fit together snugly, stand firm and square on the base, so that chamber assembly is greatly simplified. Pieces can be easily notched or cut to fit around lugs and furnace castings. Packaged in a single sturdy shipping carton, the complete unit includes banding wires and mortar.

An Armstrong chamber's thrifty operation means greater fuel savings for your customers. Heat can be adjusted more accurately—homes can be kept more comfortable while fuel bills are reduced as much as 15%!

Chart and diagrams at left give further data on the three types of chambers available. All have high insulating efficiency, low heat storage, great strength, and spalling resistance.

Armstrong's Combustion Chambers and Insulating Fire Brick are sold through Armstrong distributors and oil burner wholesalers. For complete information and prices, call your nearest supplier or write direct to Armstrong Cork Company, 1412 Mulberry St., Lancaster, Pennsylvania.

3 BRICK TYPES FOR TEMPERATURES UP TO 2600° F.

Armstrong's Combustion Chambers are made from three types of insulating refractories: A-20 for temperatures to 2000° F.—A-23 for temperatures to 2300° F.—A-26 for temperatures to 2600° F.

For furnaces requiring specially built combustion chambers, use Armstrong's Insulating Fire Brick. Chambers to fit the firebox of any furnace can be quickly cut from standard shapes. The efficiency and ruggedness of these brick have been proved by many years of service in industrial applications where conditions are extremely severe.

ARMSTRONG'S COMBUSTION CHAMBERS

Made of Armstrong's Insulating Fire Brick

Last January We Said-

DOUBLE CHECK THESE ADVANTAGES OF BEING A YORK-HEAT DEALER

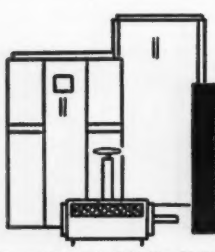
- ✓✓ America's most complete line of automatic heat —oil or gas-fired.
- ✓✓ America's finest automatic heat—precision built.
- ✓✓ Exclusive Sales features that make sales.
- ✓✓ Complete Merchandising Program.
- ✓✓ Powerful Billboard Advertising in your home town.
- ✓✓ Strong National Magazine, National Newspaper and National Radio Advertising.
- ✓✓ Cooperative Advertising—completely revolutionary program.
- ✓✓ Sales Literature to help you sell.
- ✓✓ Sales Training at local level.
- ✓✓ Timely, tested Sales Promotions.
- ✓✓ Signs, Banners, and Advertising Novelties for your use.
- ✓✓ Distributor assistance at the local level.
- ✓✓ Retroactive volume rebate.
- ✓✓ Suggested Consumer Prices.

You can make more money with the York-Heat Line

Again in 1952-

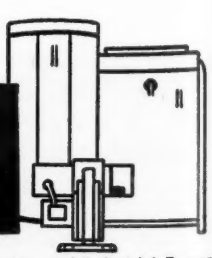
YORK-HEAT WILL OFFER THESE ADVANTAGES PLUS—

York-Heat's 1952 merchandising program has been completed—and it will offer dealers more profit-making possibilities than ever before. An inquiry now will give you first crack at a 1952 franchise in York-Heat's open territories. Write today to Dept. 12, York-Shipley, Inc., York, Pa.



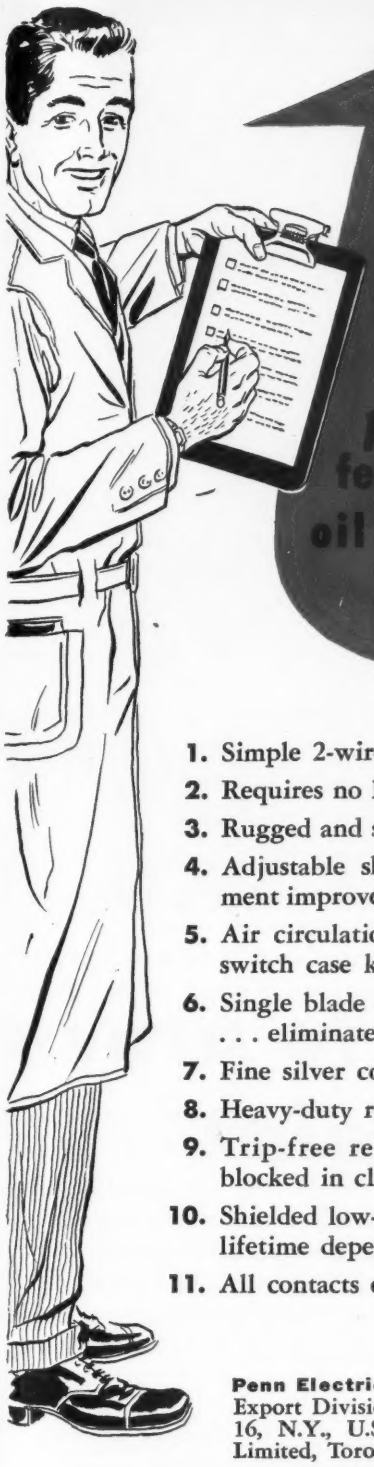
A PRODUCT OF YORK-SHIPLEY, INC., YORK, PA.

YORK ¼ HEAT



Oil and Gas-Fired Boiler Units, Winter Air Conditioners and Burners—Gas and Electric Water Heaters—Oil and/or Gas Fired Steampak Generators and Industrial Burners.

COMPARISON TESTS PROVE...



only Penn Stack Switches have

Low Voltage Protection

plus all these features that keep oil burner customers SOLD!

1. Simple 2-wire low voltage hook-up.
2. Requires no leveling.
3. Rugged and sensitive stack element.
4. Adjustable shank ventilation on stack element improves performance on "slow" stacks.
5. Air circulation between reflector plate and switch case keeps interior parts cool.
6. Single blade combustion contact mechanism . . . eliminates sequence adjustment.
7. Fine silver contacts throughout.
8. Heavy-duty relay core and armature.
9. Trip-free reset — warp switch cannot be blocked in closed position.
10. Shielded low-voltage warp switch heater for lifetime dependability.
11. All contacts easily accessible.

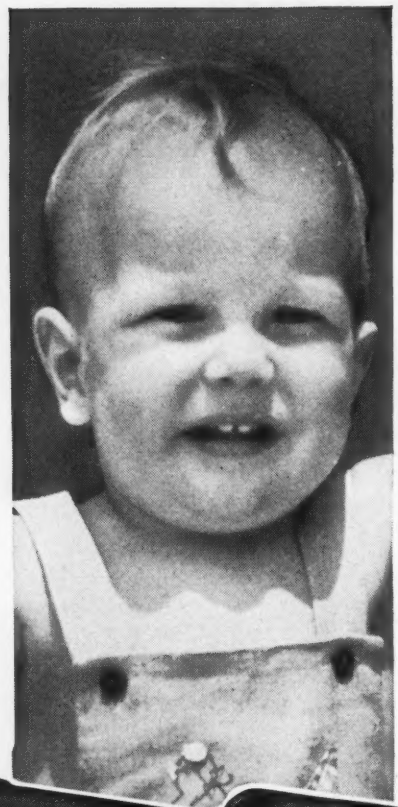
Penn Electric Switch Co., Goshen, Indiana
Export Division: 13 E. 40th Street, New York 16, N.Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ont.

GET THE FACTS . . . ASK FOR FREE DESCRIPTIVE FOLDER

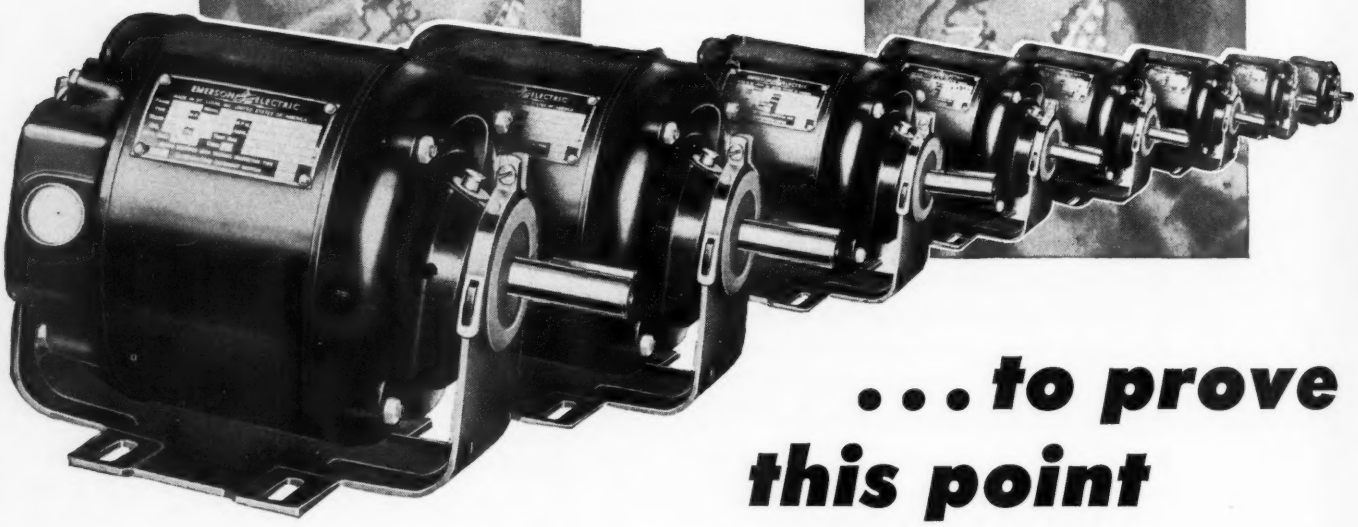
NATIONALLY ADVERTISED IN BETTER HOMES AND GARDENS, AMERICAN HOME, NEWSWEEK

PENN AUTOMATIC CONTROLS

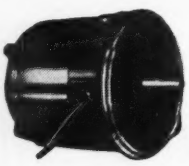
FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES



Two are Better Than One



. . . to prove this point



OIL BURNER MOTORS

No matter how good your Oil Burner may be, it can be no more reliable than the motor that drives it. Emerson-Electric oil burner motors are specially designed and precision-built for this job . . . they are totally enclosed, extra quiet in operation, require a minimum of maintenance and meet Underwriters' Laboratory specifications for oil burner service. Write for Oil Burner Motor Data Bulletin No. 182.

There's nothing unusual in being able to produce *one good motor.* But when that single unit must be multiplied by thousands, and all must match the original, it is a factor you should consider in selecting the motor for your products.

In Emerson-Electric motors, uniformity in appearance is unquestioned. *Uniformity of performance,* the important factor, has earned for them wide acceptance among America's leading appliance and equipment manufacturers. Knowing the reputation of their products is determined by uniformly dependable performance, these manufacturers turned to Emerson-Electric motors.

More than 61 years of precision motor production has made uniformity one of the many advantages inherent in Emerson-Electric motors. For full information on this complete line of motors in the 1/20 to 5 h.p. range, write today to:

THE EMERSON ELECTRIC MFG. CO.
St. Louis 21, Mo.

EMERSON EMERSON ELECTRIC **ELECTRIC**
MOTORS • FANS APPLIANCES

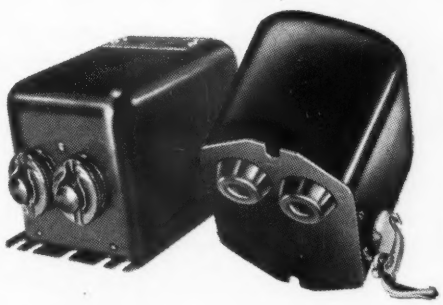
A Famous Signature of a Famous American

● Aside from being the author of the Declaration of Independence and third president of the United States, Thomas Jefferson demonstrated great skill and ingenuity in the engineering of building structures and invention. Included in his many accomplishments were the invention of the mould board for plow shares and a duplicating machine called the Polygraph. The Jefferson signature therefore gained added fame in the mechanical field.

On transformers, the Jefferson signature has become a symbol of outstanding accomplishment and inventive skill. It stands for the integrity of the manufacturer, unmatched uniform quality of product and the never ending quest by Jefferson Engineers for better methods, finer materials, and more efficient transformers to meet the exacting requirements of today *and* tomorrow.

For over 35 years Jefferson has continually developed and incorporated vital improvements that have *earned* Jefferson Transformers their high reputation. Their efficient design, fine workmanship, and unvarying quality assures the long, economical service that has made Jefferson Transformers preferred by prominent oil burner manufacturers and users all over the country.

On Transformers Too The Famous Signature is



Jefferson

JEFFERSON ELECTRIC

JEFFERSON ELECTRIC COMPANY • **Bellwood, Illinois**

IN CANADA: Canadian Jefferson Electric Co., Ltd., 384 Pape Ave., Toronto, Ont.

STOP LOOKING!

SID HARVEY has ALL types of Motors used in Automatic Heating
NEW and
GUARANTEED REBUILT

Quick Service:
Hundreds of rebuilt motors in stock. Immediate exchange—No waiting.

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All Kinds—All Makes; including G.E., Ohio, A.B.C., Petro, Timken, Thrush, Arco, Oil-O-Matic, Teesdale, etc.

Quality Workmanship:
Every Motor is stripped down, cleaned, Rotor & Governor Assemblies serviced & balanced, worn Shafts metalized, Starting Switches & Bearings serviced or replaced. New leads installed, Sprayed Finish.

Low Cost:
Sid Harvey rebuilt motors (without rewinding) cost less than half the price of a new motor, but carry the SAME GUARANTEE as a new motor.

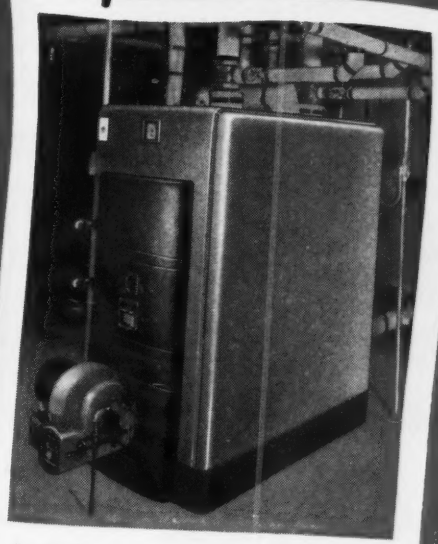
Sid Harvey's has ALL of the OTHER PARTS that are used in Automatic Heating. Send for free 226 page catalog.

Other SID HARVEY Stores: Boston, Mass., Bridgeport, Conn., Mt. Vernon, N. Y., Hempstead, N. Y., Jamaica, N. Y., Union City, N. J., Newark, N. J., Highland Park, N. J., North Philadelphia, Pa., West Philadelphia, Pa., Baltimore, Md., Washington, D. C.

AMERICAN-Standard

First in heating...first in plumbing

Comprising seven buildings, each of which has four identical 2 and 3 bedroom units, this low-rent Veterans Housing Project in Middleborough, Mass., is efficiently heated with American-Standard boilers and convectors throughout.



A single Severn Boiler, fired with an Arcoflame Oil Burner, furnishes an abundance of heat to all four units in each building. Provides fully automatic heating at lowest cost.

Another good example of AMERICAN-Standard Heating Equipment in multiple family dwellings

The heat in each family unit is distributed through good-looking American-Standard convectors. These popular convectors come in 63 stock model sizes as well as in special models to meet virtually any heating requirement.

● The selection of American-Standard heating equipment for this Massachusetts low-rent housing project is further proof of the economy of quality products. It is also another good selling point to use when going after similar jobs in your own community.

In the complete American-Standard line you have boilers of all types and sizes, as well as a wide range of radiators and convectors. In addition, American-Standard helps you do a thorough selling job by backing you up with the American-Standard Better Retailing Plan. For details, contact your wholesale distributor.

American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

Serving home and industry

AMERICAN-STANDARD · AMERICAN BLOWER · CHURCH SEATS · DETROIT LUBRICATOR · KEWANEE BOILERS · ROSS HEATER · TONAWANDA IRON

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ASK ANY READER OR ADVERTISER ABOUT THE JANUARY STATISTICAL & REVIEW ISSUE (Yearbook)

It has been a notable event for oilheating and fueloil men for 22 years. It gives Dealers, Jobbers and Manufacturers the facts on production, prices and trends for 1951, and projections for 1952. Because January is read longer and used longer, it gives advertisers an extra dividend of value. *It's good business to be represented in such an important issue.* The Market, The Time, and The January Issue itself make it worthy of your best advertising effort. HOW MUCH SPACE SHOULD WE RESERVE FOR YOU?

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For 33 Years the Industry's Authority

fueloil & oil heat

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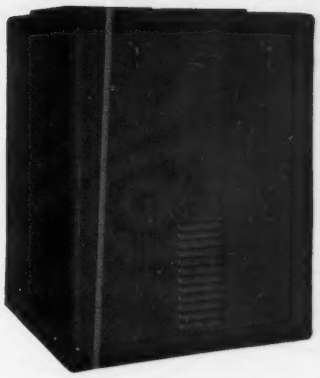
Gas Forced Air Flo-Warm Furnace

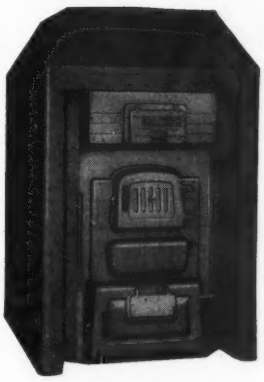


Oil De-luxe Flo-Warm Furnace

THE WILLIAMSON HEATER COMPANY

Complete Line

WARM AIR HEATING and WINTER AIR CONDITIONING



Tripl-ife Square Cased Gravity Furnace

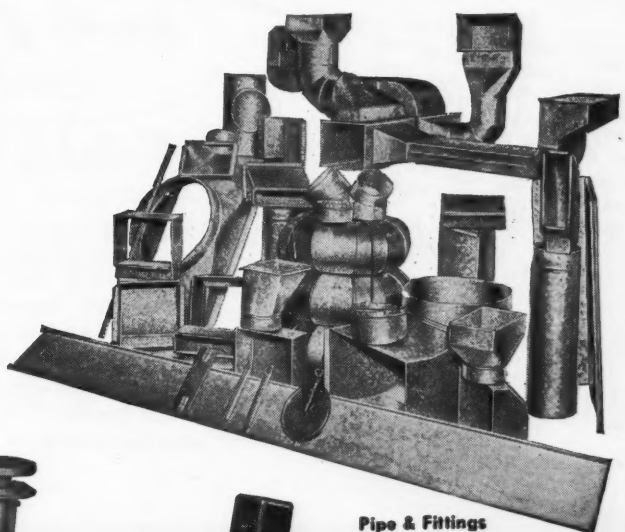
"HEAT TO YOUR HEART'S CONTENT"

Gas, Oil, or Coal—there is a Williamson Warm Air Furnace for any size installation. Beautifully styled, built for life-time service, and designed for fuel economy, the models shown represent 60 years of research—and dealer satisfaction. For greater sales, easier installations, more enthusiastic customers and bigger profits investigate the Williamson Complete Line. Write for details—

THE WILLIAMSON HEATER COMPANY
Dept. FO-12, 4558 Marburg Ave.
Cincinnati 9, Ohio

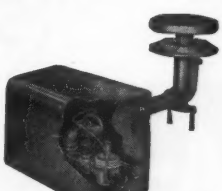
Tripl-ife Round Cased

Gas Gravity Furnace

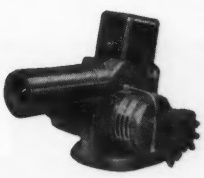


Pipe & Fittings

Oil Hi-Boy Furnace



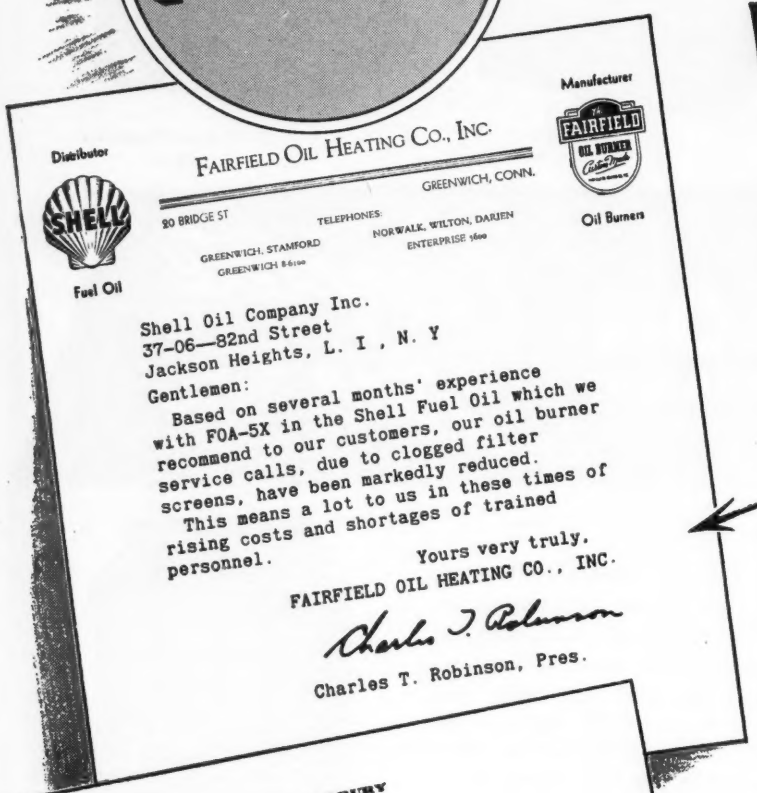
Gas Burner



Oil Burner

Stoker

PROOF – that Shell Fuel Oil with FOA-5X is the answer to filter-screen clogging



Distributor

SHELL

Fuel Oil

FAIRFIELD OIL HEATING CO., INC.

GREENWICH, CONN.

20 BRIDGE ST

TELEPHONES:
GREENWICH, STAMFORD
GREENWICH 8-6100
NORWALK, WILTON, DARIEN
ENTERPRISE 7600

Manufacturer

FAIRFIELD OIL BURNER

Oil Burners

Shell Oil Company Inc.
37-06—82nd Street
Jackson Heights, L. I., N. Y.

Gentlemen:

Based on several months' experience with FOA-5X in the Shell Fuel Oil which we recommend to our customers, our oil burner service calls, due to clogged filter screens, have been markedly reduced.

This means a lot to us in these times of rising costs and shortages of trained personnel.

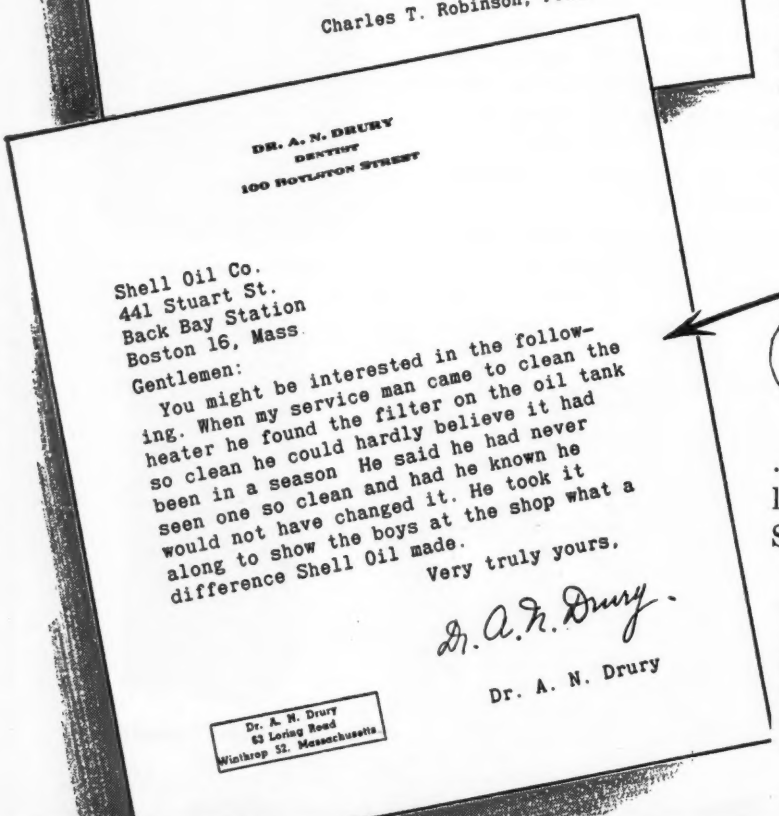
Yours very truly,
FAIRFIELD OIL HEATING CO., INC.

Charles T. Robinson

Charles T. Robinson, Pres.

– from a distributor

Note that Mr. Robinson says his service calls have been markedly reduced . . . *and that means lower operating costs.* It also means satisfied customers.



DR. A. N. DRURY
DENTIST
100 BOYLSTON STREET

Shell Oil Co.
441 Stuart St.
Back Bay Station
Boston 16, Mass.

Gentlemen:

You might be interested in the following. When my service man came to clean the heater he found the filter on the oil tank so clean he could hardly believe it had been in a season. He said he had never seen one so clean and had he known he would not have changed it. He took it along to show the boys at the shop what a difference Shell Oil made.

Very truly yours,

Dr. A. N. Drury

Dr. A. N. Drury

Dr. A. N. Drury
63 Loring Road
Winthrop 52, Massachusetts

and from a customer

. . . a voluntary letter, summed up in the last sentence, ". . . what a difference Shell Oil made."

These two examples show how Shell Fuel Oil with FOA-5X brings a basic reduction in expense to dealers in fulfilling their annual oil burner service contracts.

SHELL

SHELL FUEL OIL *with* FOA-5X

AUTOCAR COST RECORD BOOK

30th annual edition now ready

The Autocar Cost Record Book is a tradition among Autocar users. For the past thirty years, The Autocar Company has made copies of this book available to all its customers. It has been continually edited and revised to keep pace with changing methods in accounting and in truck operating. It provides a simple and accurate system for keeping records of the cost of operating each vehicle in a fleet, and, at the same time, for comparing those costs one with another, month by month.

The thirtieth edition of this book is now available at all Autocar Factory Branches and Distributors from coast to coast. It is offered without cost, and in any desired quantity, to anyone who owns Autocar Trucks. Our object in publishing it is not entirely altruistic, for it usually serves to reveal to the operator of a mixed fleet that Autocars are the most economical.

THE AUTOCAR COMPANY

Ardmore, Pa.

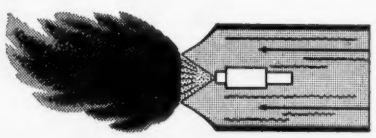
Established 1897 • Factory Branches and Distributors from Coast to Coast

ANCHOR OIL BURNER MODEL SA

Uses 1/4 Less Fuel

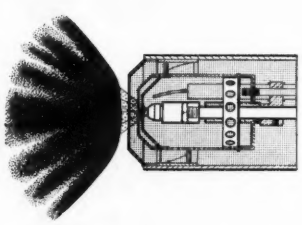
Gets More Heat!

Repeated tests prove that the Anchor Oil Burner with Shell combustion head saves as much as 36% of the fuel used by ordinary burners. The *average* saving is 24.5% . . . nearly 1/4 less fuel than the average burner! That's why Anchor is the best burner for you to push. It means satisfied customers, minimum call-backs, widespread repeat business and widespread good will. If you are not yet lined up with America's leading Oil Burner get the Anchor facts today!



ORDINARY BURNER HEAD

Most ordinary burner heads depend on spiral fins which are intended to impart a "swirling" motion to the air. Although this motion is effective as long as the air is *inside* the burner head it stops the instant the air is released. Thus the force that was meant to direct the flame dwindles to a feeble puff which lacks the force to properly atomize the oil. Result? Serious heat loss, unnecessary fuel consumption, tendency for the partially consumed fuel to form smoke and carbon.



ANCHOR BURNER HEAD

In contrast with ordinary burner head principle described above, our Shell combustion head might be compared to the nozzle on your garden hose. When the nozzle is open the water rushes through as in an ordinary burner. But, turn the nozzle to "fine spray" and you have the Shell combustion principle. The oil is atomized under pressure so great that every single tiny oil droplet is completely consumed. Result? No heat loss, no smoke or carbon . . . money saved on every drop of oil you buy.

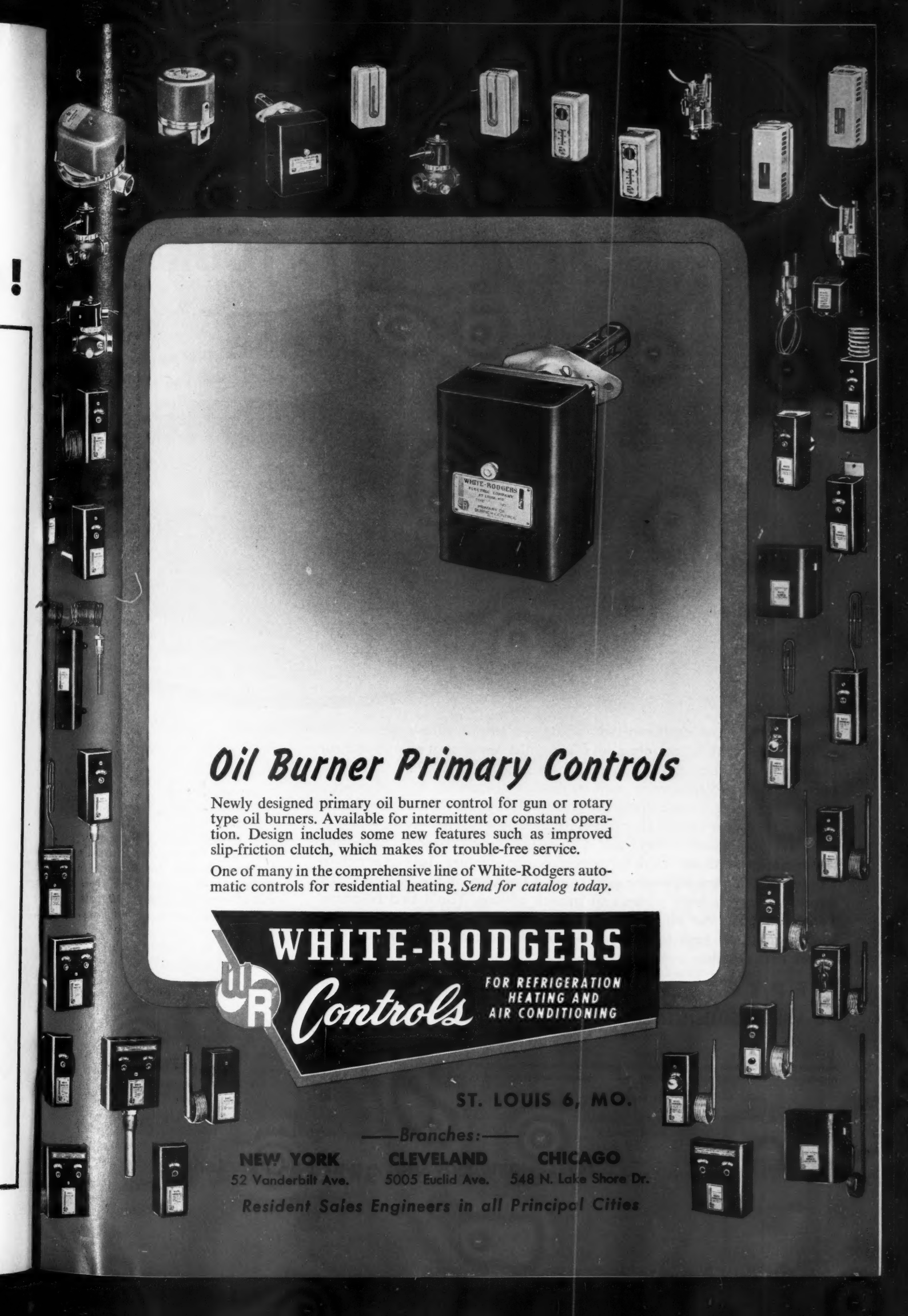
ANCHOR OIL BURNER

Division of

STRATTON & TERSTEGGE CO.

INCORPORATED

Box 311, New Albany, Indiana



Oil Burner Primary Controls

Newly designed primary oil burner control for gun or rotary type oil burners. Available for intermittent or constant operation. Design includes some new features such as improved slip-friction clutch, which makes for trouble-free service.

One of many in the comprehensive line of White-Rodgers automatic controls for residential heating. *Send for catalog today.*

WHITE-RODGERS

WR Controls

FOR REFRIGERATION HEATING AND AIR CONDITIONING

ST. LOUIS 6, MO.

—Branches:—

NEW YORK	CLEVELAND	CHICAGO
52 Vanderbilt Ave.	5005 Euclid Ave.	548 N. Lake Shore Dr.

Resident Sales Engineers in all Principal Cities

YOUR METER IS YOUR CASH REGISTER

It makes 2800 fuel oil sales and handles $75,000. of your money every year*

Your meter is your cash register, billing system, inventory system and driver's helper all rolled into one. Choose the meter that's designed for *accuracy*—accuracy that is *sustained* for long periods. Pick the meter that makes no compromise with any other factors in its design—the meter that doesn't need frequent fussy adjustments—the meter that is trouble-free, won't tie up your trucks for picayune repairs—the meter that will save you dollars every year in maintenance costs alone. Study the meter design features. Look for precision manufacture. Talk over actual meter performance with men who know. Check up on the service that's available to *you* from jobbers or branch offices. You'll find Neptune Red Seals come out on top every time. Specify Red Seals for all your bulk plants and tank trucks—for accuracy you can bank on. Ask for prices and details.

*Based on national fueloil dealer averages as reported by Fueloil and Oil Heat.

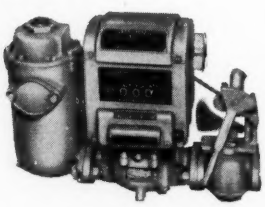
Many fueloil trucks do far more than this—in some cases putting through oil worth 300 times the cost of the meter in one year. Gasoline trucks, too, handle larger gallonage. For instance, in Dallas, a Red Seal tank truck meter handled 13,000,000 gals. in six years—without a single repair bill.

NEPTUNE METER COMPANY

50 WEST 50th STREET • NEW YORK 20, N. Y.

Branch Offices

ATLANTA • BOSTON • CHICAGO • DALLAS • DENVER • LOS ANGELES • LOUISVILLE • NO. KANSAS CITY, MO.
PHILADELPHIA • SAN FRANCISCO • PORTLAND, ORE. • Canadian Factory: TORONTO 14, ONT.



RED SEAL® METERS

DISTINGUISHED *for sustained accuracy and low maintenance*

60-K

To store oil, you need the right kind of drum.

this →

not this ←

Same way with trucks. Get one that fits the job!

Dependable DODGE TRUCKS are "Job-Rated" to haul more

It's a fact! You'll haul a whale of a lot more with a Dodge *"Job-Rated"* truck!

Thanks to scientific weight distribution—plus a brawny, rock-solid frame and extra-capacity rear axle—you can carry bigger loads of gas or oil without overloading.

And, brother—watch your ton-mile hauling costs nose-dive!

New Dodge truck engines are mighty easy on your billfold—yet they pack up to 20% more power than ever before! Features like the twin carburetion and exhaust system on big, 145-hp., 3- and 3½-ton jobs boost efficiency and trim operating costs down to size!

More than that, your Dodge truck will be *"Job-Rated"* to keep on giving you dependable, economical service for years to come. And you'll have the safest, sweetest-handling truck on the road!

Better get the whole value story about Dodge *"Job-Rated"* trucks firsthand. See your Dodge dealer—soon.

How a Dodge Truck is *"Job-Rated"* for the Oil Business

A Dodge *"Job-Rated"* truck is engineered *at the factory* to provide the best in low-cost transportation . . . last longer . . . save you money.

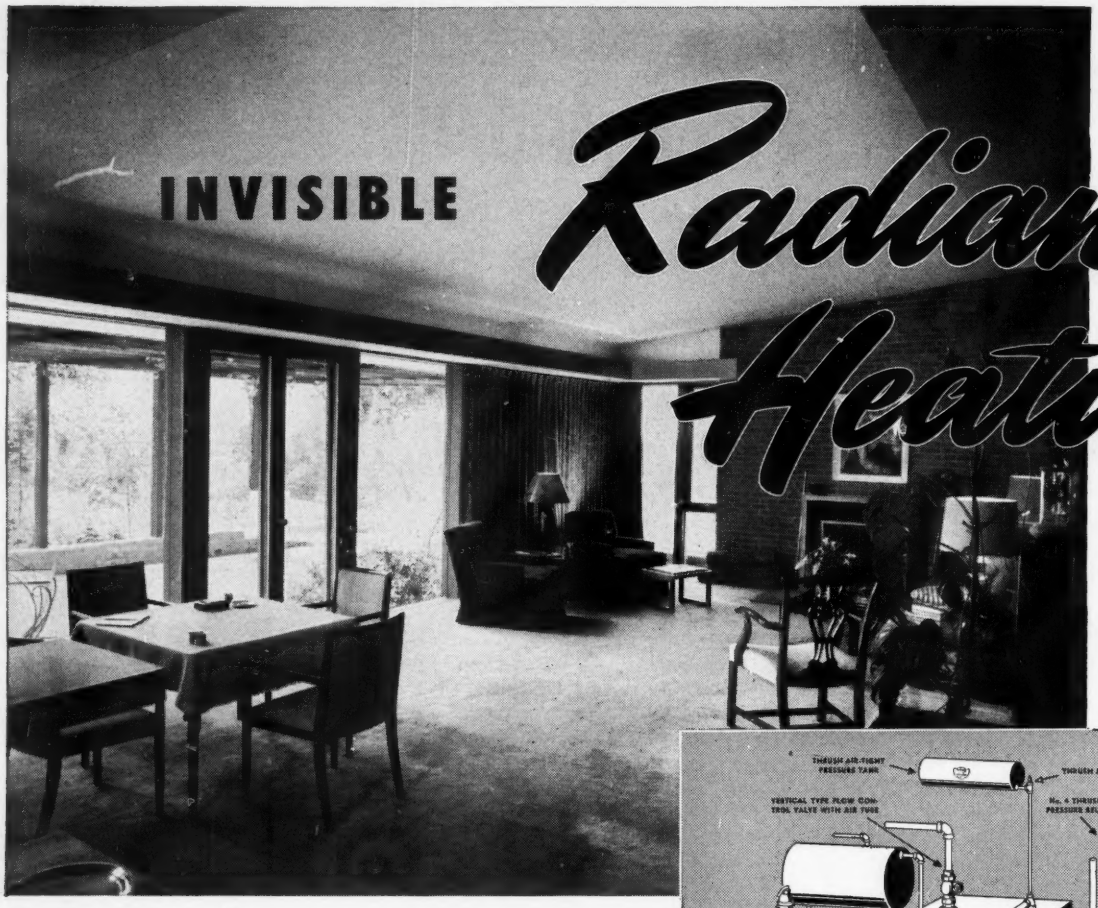
Every unit from engine to rear axle is *"Job-Rated"*—factory-engineered to haul a specific load.

Every load-CARRYING unit—frame, axles, springs, wheels, and tires—is engineered to provide extra strength and capacity necessary to *support* the load.

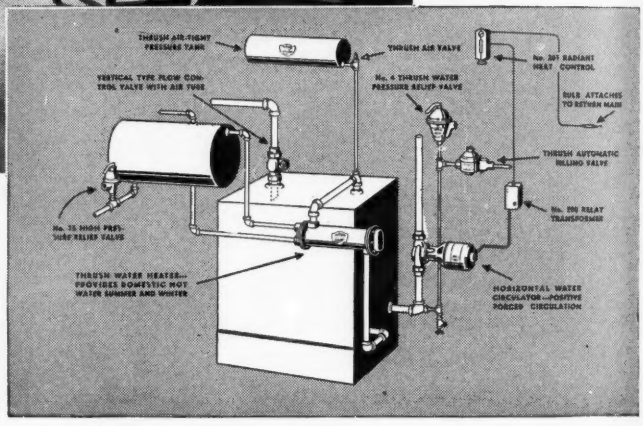
Every load-MOVING unit—engine, clutch, transmission, propeller shaft, rear axle, and others—is engineered to *move* the load under the most severe operating conditions.

"Job-Rated" TRUCKS DO THE MOST FOR YOU

fuel oil & oilheat



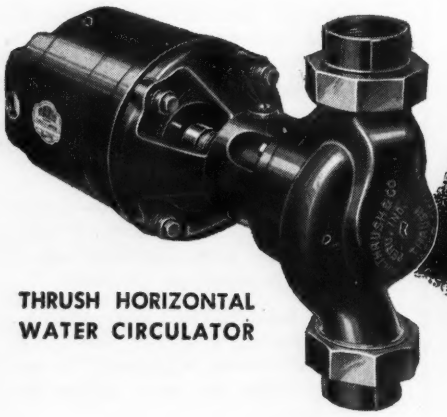
INVISIBLE *Radiant Heating*


THRUSH AIR-TIGHT PRESSURE TANK
THRUSH AIR VALVE
No. 207 RADIANT HEAT CONTROL
VERTICAL TYPE FLOW CONTROL VALVE WITH AIR TUBE
No. 4 THRUSH WATER PRESSURE RELIEF VALVE
BULB ATTACHES TO RETURN MAIN
THRUSH AUTOMATIC FILLING VALVE
No. 35 HIGH PRESSURE RELIEF VALVE
No. 590 RELAY TRANSFORMER
THRUSH WATER HEATER—PROVIDES DOMESTIC HOT WATER SUMMER AND WINTER
HORIZONTAL WATER CIRCULATOR—POSITIVE FORCED CIRCULATION

forced circulating

THRUSH FLOW CONTROL HOT WATER HEAT

THRUSH hot water heating system is flexible. With forced circulation and completely automatic control you can install any type of modern heating your customers desire and be sure of complete satisfaction. Heat from radiant coils hidden in ceiling or floor, radiant baseboards or convectors, with Thrush Flow Control System provide perfect comfort without overheating, automatically compensating for weather changes. Zoning is simple and inexpensive. Get all the facts on profitable Thrush equipment now. See your wholesaler today or write Dept. C-12



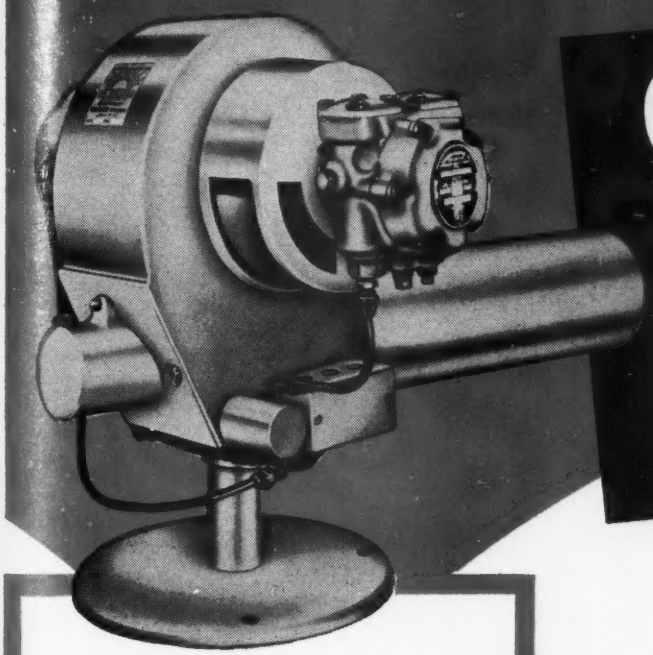
THRUSH HORIZONTAL WATER CIRCULATOR

THRUSH

H. A. THRUSH & COMPANY

PERU • INDIANA

For Today's Best Burner Value



COMPARE

- √ FEATURES
- √ PERFORMANCE
- √ REPUTATION
- √ SALES HELP

then finally price and you'll settle on

Now

SUN-RAY

Series "S" Burners are Equipped with

DELAYED ACTION OIL VALVE

Standard on all Series "S" Models. Also available on all other Sun-Ray models.

SUN-RAY FULLY AUTOMATIC OIL BURNERS

Because they are built by one of the world's oldest and leading oil burner manufacturers.

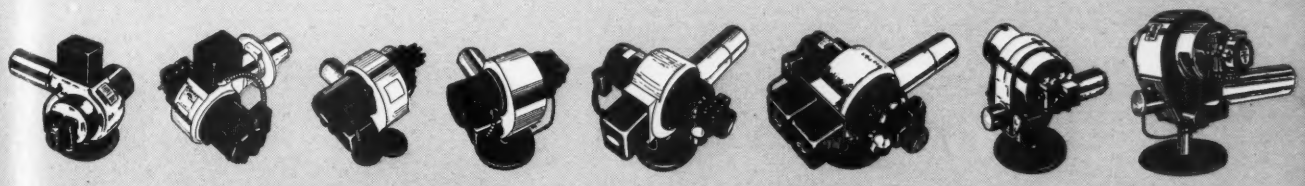
Because they are endorsed and specified by architects, engineers, builders, realty managers, Federal, State and City departments everywhere.

Because they are used by banks, schools, churches, institutions, apartment houses, commercial buildings and thousands and thousands of satisfied home owners to whom operation of Sun-Ray burners has meant years of carefree, economical heating.

Because with our sales literature, newspaper mats, displays and signs we help you sell more Sun-Ray Burners more profitably.

Inquiries Invited from Furnace and Boiler Manufacturers

SUN-RAY—FAMOUS THE WORLD OVER FOR QUALITY AND ECONOMY



Models for Every Heating Need in Sizes from 0.7 to 25 g.p.h.

SUN-RAY BURNER MANUFACTURING CORPORATION

139-22 QUEENS BOULEVARD • JAMAICA 2, N. Y.

SAVE TIME... *Cut Delivery Costs*

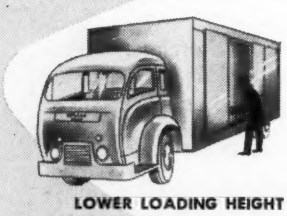
WITH THE WHITE 3000

PENN-GUINN OIL CO., of Chicago, likes the traffic advantages of the White 3000 for fuel oil deliveries. More deliveries . . . in less time.

SAVINGS you can measure at the end of every delivery day make the White 3000 an investment that pays *extra* dividends . . . for years.

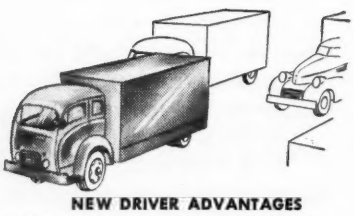
Leaders in every business...everywhere . . . are enthusiastic about the time and cost saving advantages of this entirely new kind of truck. Its exclusive features make it ideal for city delivery and over-the-road service because it is engineered exactly to specific delivery conditions.

Ask your White Representative for facts.



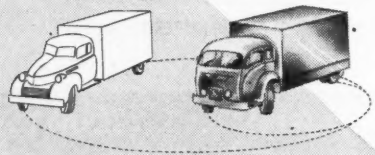
LOWER LOADING HEIGHT

EXCLUSIVE drop frame design lowers body height . . . makes it easier to load and unload . . . saves energy.



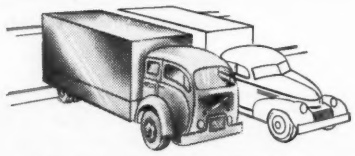
NEW DRIVER ADVANTAGES

New driving ease . . . better acceleration . . . outstanding visibility and safety . . . roomy, comfortable low-level cab.



SAVES DRIVING TIME

SHORTER turning radius and wider-tread front axle assure maneuverability that cuts delivery time and delivery cost.



CARRIES MORE . . . EARNS MORE

New weight distribution permits more payload on front-end . . . extra-capacity body without increasing overall length.

Have You Enlisted?

See Your White

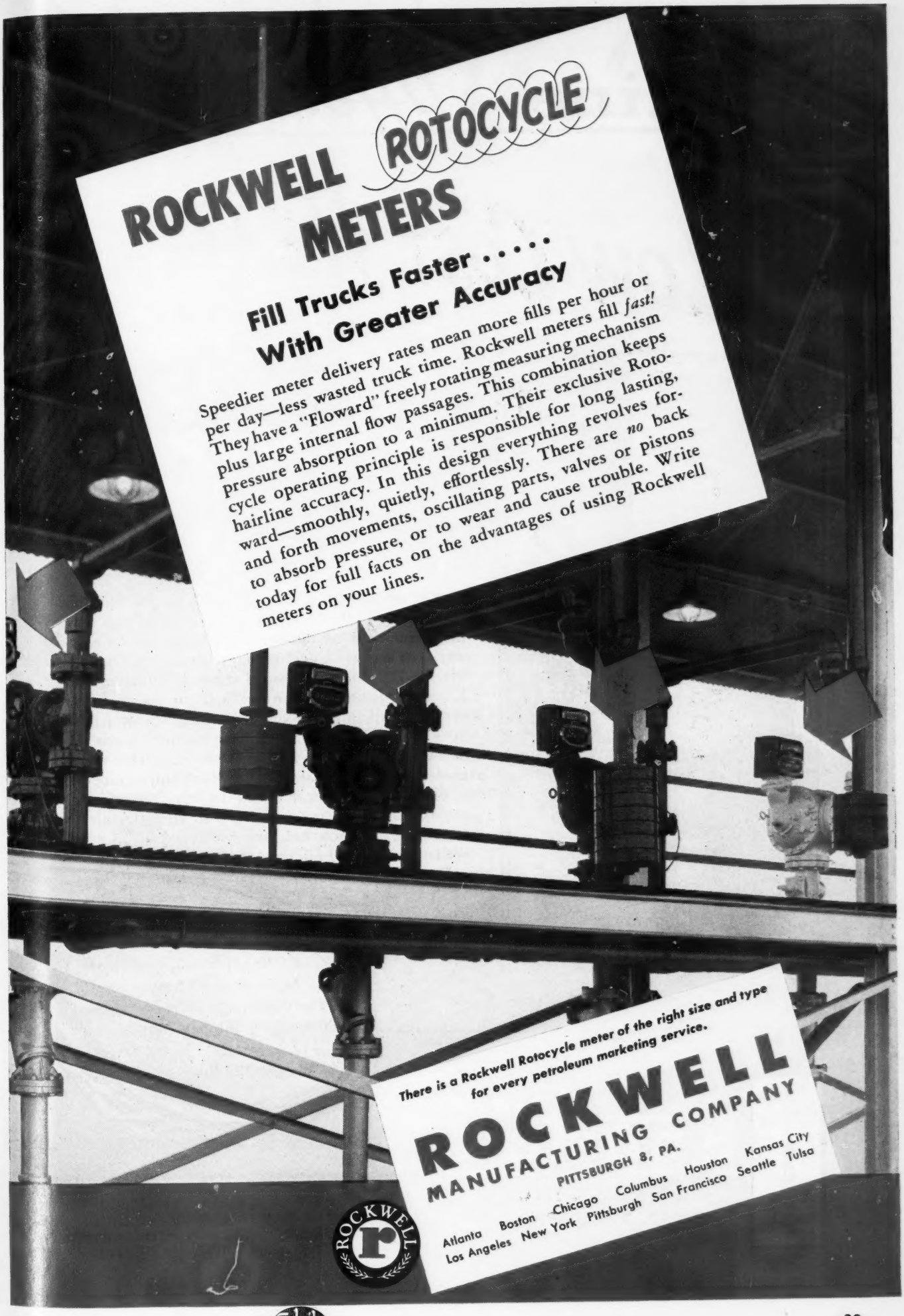
Representative For Facts

Tips its cab to service

THE WHITE MOTOR COMPANY

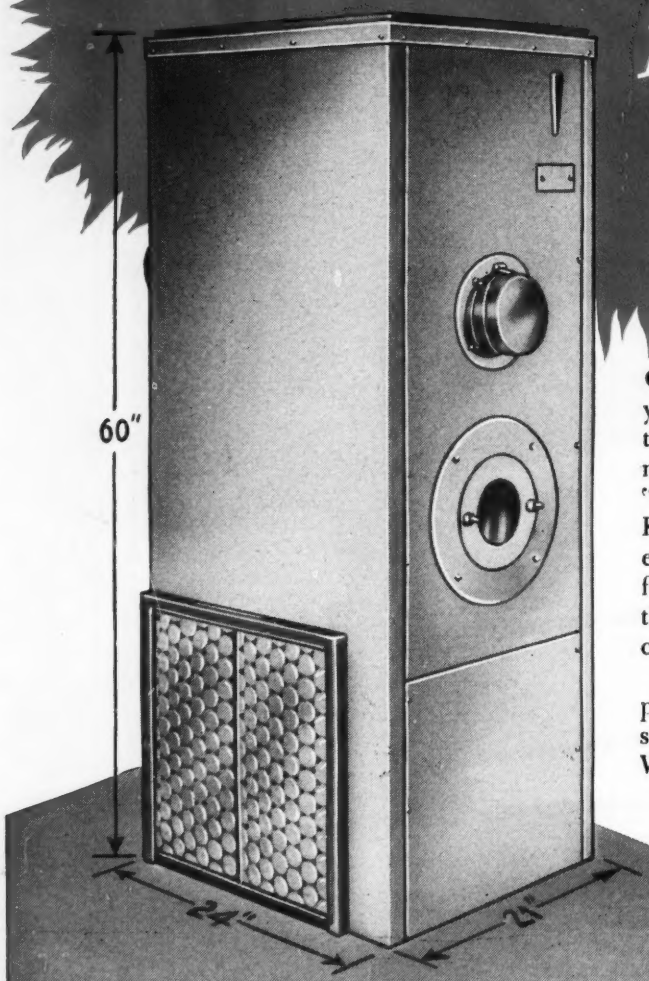
Cleveland 1, Ohio

For more than 50 years the greatest name in trucks


ROCKWELL ROTOCYCLE METERS
Fill Trucks Faster .....
With Greater Accuracy
Speedier meter delivery rates mean more fills per hour or per day—less wasted truck time. Rockwell meters fill *fast!* They have a "Floward" freely rotating measuring mechanism plus large internal flow passages. This combination keeps pressure absorption to a minimum. Their exclusive Rotocycle operating principle is responsible for long lasting, hairline accuracy. In this design everything revolves forward—smoothly, quietly, effortlessly. There are *no* back and forth movements, oscillating parts, valves or pistons to absorb pressure, or to wear and cause trouble. Write today for full facts on the advantages of using Rockwell meters on your lines.
There is a Rockwell Rotocycle meter of the right size and type for every petroleum marketing service.
ROCKWELL
MANUFACTURING COMPANY
PITTSBURGH 8, PA.
Atlanta Boston Chicago Columbus Houston Kansas City
Los Angeles New York Pittsburgh San Francisco Seattle Tulsa
ROCKWELL

Kaustine Offers

Low Cost Heat for 4 out of 5 Homes



There is a Kaustine Winter Air Conditioner for every type of home.

● It is estimated that four out of five homes built this year will be in the low priced bracket. They now have the "green light" in the building picture. Here's a tremendous market for dealers who push the new Kaustine "Jersey 75" automatic forced warm air furnace. The Kaustine "Jersey 75" can be "lost" in the corner of even a small utility room . . . only 3½ square feet of floor space are needed. Because it is completely production-assembled at the factory, Kaustine is able to include quality features with its very competitive price tag.

The "Jersey 75" is designed to bring you greater profits from low cost housing. We are still able to supply a 275 gallon fuel tank with every unit. Write for complete information. Dept. FD.

THE STORY IN A NUTSHELL

75,000 BTU's • 3½ sq. ft. of floor space • Chrome Steel Fire Pot Liner • Fully Automatic Controls • Shipped "Ready to Install" Weight 324 lbs.

KAUSTINE QUALITY SERVICE SATISFACTION

Kaustine

COMPANY, INC.
PERRY, NEW YORK

Modulated Warm Air Furnaces from 65,000 to 270,000 B. T. U.—Septic Tanks—Pressure Vessels—Oil and Gasoline Storage Tanks—Truck Tanks—Custom Built Fabricated Equipment

WARM AIR HEAT

is not complete without a **Skuttle** HUMIDIFIER

The National Warm Air Heating Association says:

"Winter air conditioning consists of simultaneous control of . . . temperature, humidity, air motion, air distribution and dust content."

SERIES 600
(Patents Pending)

"Humidity" is essential to human health, comfort and fuel economy. Home owners generally are awakening to the need. Skuttle Humidifiers, built by the most experienced makers, promoted by advertising in daily newspapers and by satisfied users, are the ones most in demand, most profitable for you to sell.

All Skuttle Humidifiers are made of corrosion resisting materials —Vitreous enamel pan and float chamber—blown glass float. See your jobber about them.

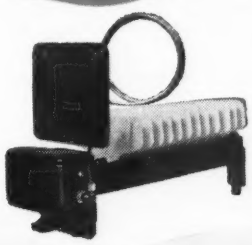
Three Models Meet Every Need

SKUTTLE SERIES 600 (Patents Pending)—Self-feeding, self-flushing—self-cleaning. Holds 5 to 20 evaporating plates for up to 180,000 BTU capacity. Clean by raising flush lever.

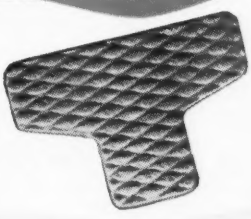
SKUTTLE SERIES 300—Self-feeding—holds up to 40 plates. For large homes.

SKUTTLE SERIES 500—Self-feeding. No plates used—for coal fired warm air furnaces with high plenum temperature. (Not illustrated.)

VAPOGLAS EVAPORATING PLATES (Patented)—Made of pure glass wool, compressed after heating. Absorb 70% more water, pound for pound. Sturdy, stand more handling.



SERIES 300



PATENTED VAPOGLAS PLATE

TO HELP YOU SELL

In addition to extensive newspaper advertising in season, Skuttle has these specific helps for your business:

Folder "The Story of Humidity"—complete, attractive, convincing. Envelope stuffer size. Mail to all your prospects.

Counter or Window Display — beautiful and powerfully effective—in the wonderful modern "Day-glo" color. Easy to set up.

Decal For Your Door or Window

Vapoglas Plate Dispenser and a Colorful, Attractive Counter Display

Sales Manual—with a complete sales program.

Ask your jobber about these helps, or write us direct.

Skuttle MANUFACTURING

4099 BEAUFAIT AVE. • DETROIT 7, MICH.

5793

ESTIMATING HEAT RADIATION IS SIMPLE AND QUICK

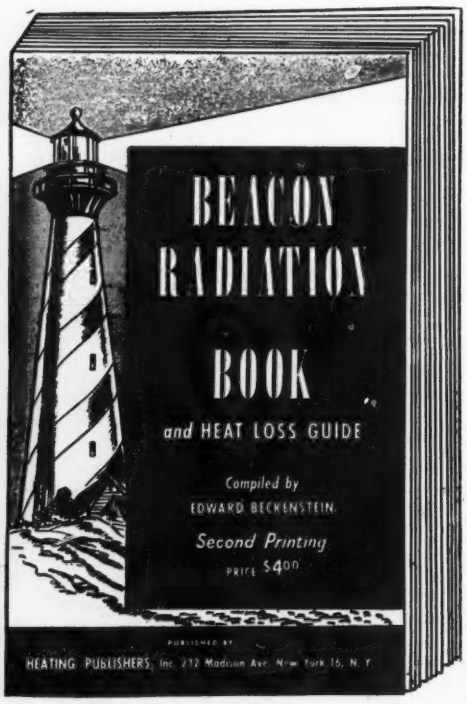
with

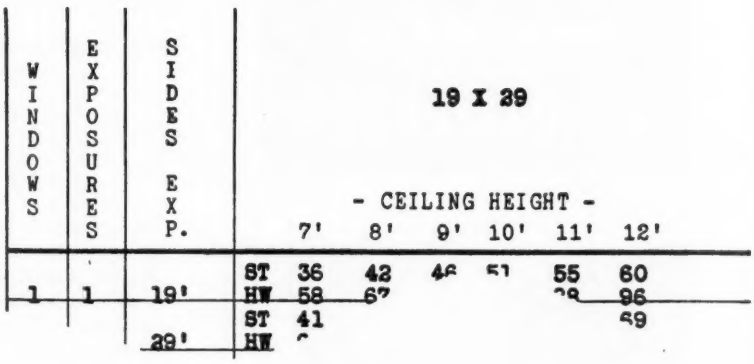
BEACON RADIATION BOOK

Price
$4.00

Thousands of Oil Heating Men use this book each day and say "What A Big Time Saver"

Order yours today!





WINDOWS	EXPOSURES	SIDES EXP.	19 X 39 - CEILING HEIGHT - 7'	8'	9'	10'	11'	12'
			ST 36	42	46	51	55	60
1	1	19'	HW 58	67			78	96
			ST 41					69
		29'	HW					

THIS pocket-size book shows the required radiation for all rooms of ordinary size with from one to three windows, one to three exposures, and every combination of walls exposed. Figures are based on calculations of the space by the Btu method on a 0° to 70° design temperature. A table shows corrections for other design temperatures.

Steam and hot water radiation required for every room from 5 x 5 to 20 x 30 ft. A single volume of 175 tables.

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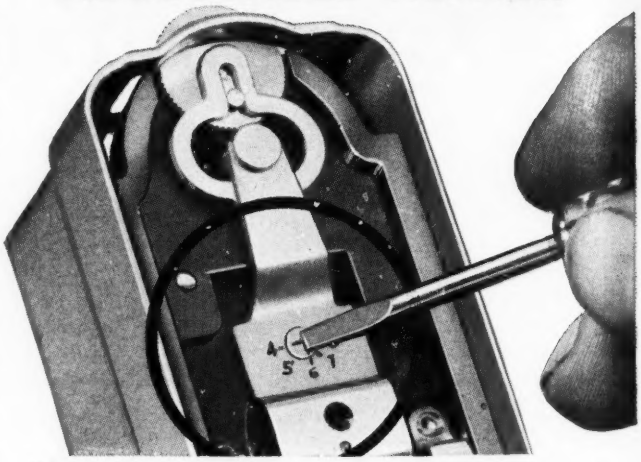

Set heater to match any primary control . . . on the job. No assortment of heaters to bother with.

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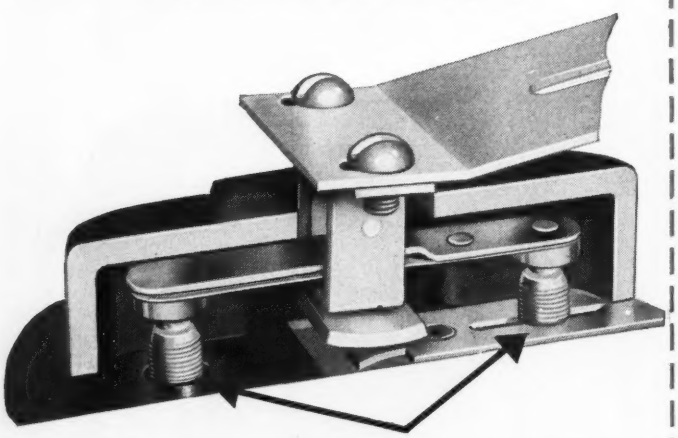

Positive contact at all times . . . immune to vibration. Self-cleaning. No flexible lead wires.

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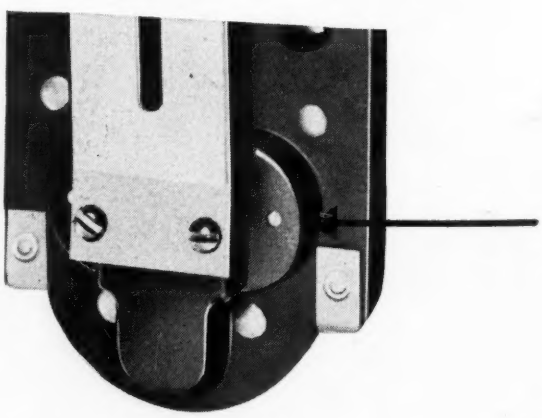

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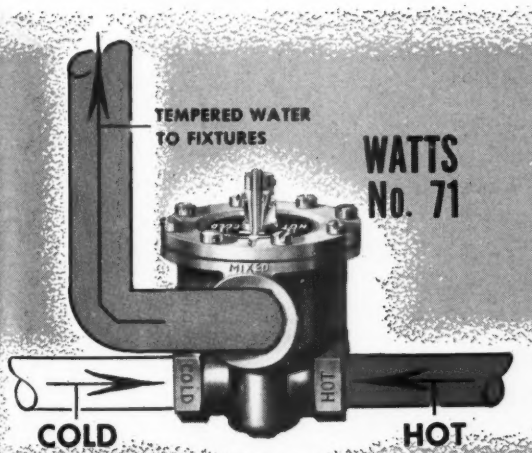

Domestic hot water is very necessary to modern living—a wonderful servant when it is controlled—But, a menace to safety when left uncontrolled.

You do your customers a real service when you sell them a dependable Watts water tempering valve. You insure their personal safety—you stretch their supply of hot water and conserve fuel for them—you may even save them from possible law suits.

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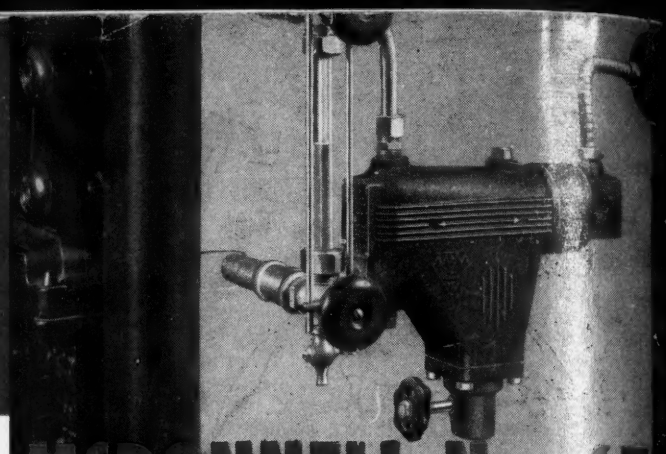


. . . When you install the McDONNELL No. 67

Low Water Fuel Cut-Off

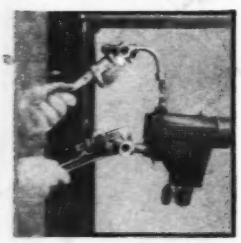
It rarely happens . . . but occasionally you *do* run across a product so far ahead of its field — in quality and downright dollar value — that you marvel at the accomplishment.

You are looking at a shining example of this right now — the McDonnell No. 67 Low Water Cut-off — the most dependable means of stopping the burner on automatically-fired low pressure steam boilers whenever water level falls into the danger zone. If you have ever installed a No. 67 (with your own hands) you don't need to be told this. But if not, we would like to have you consider some of the features that make this your kind of cut-off for those low pressure steam boilers of any size: —

● You save 20 minutes installing it

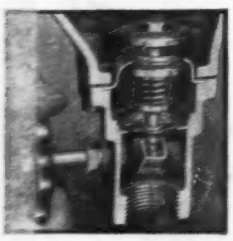
Let's start where the job starts — with the installation. Part of the cost of a cut-off is the cost of installing it — and in these days of high wages every minute you can save gives you and your customer a better deal.

When you take the No. 67 out of its tailored package, you see at once that it's ready for quick installation. Unlike other cut-offs, the parts are in place. Lower nipple and tee are in place — solidly factory mounted. Top tee is specially designed, has quick attachment nut to lock brass tube in place. Blow off valve (more about this later) is in place. Tubing is half-hard brass; not the soft copper tubing that can be bent or squeezed out of shape. It holds its true circle roundness; compression fitting ring slips right over it. Never needs to be filed like soft tubing. As a result of all this, tests show it takes 20 minutes less time to install the No. 67 than any other. This alone will almost pay back the little more the No. 67 costs.



● No other blow-off valve like this—

Having put the No. 67 on the boiler, let's look at the features that give your customer so much more. Take the blow-off valve illustrated here. Instead of a standard half-inch valve thrown into the package for you to install, the No. 67 has that special straight-through, self-closing, big capacity blow-off valve. Its rising stem breaks up any accumulated sediment and the big opening flushes it out clean. Water flushes out far faster than it comes in from the boiler so switch action can be tested. Blowing down a few cups of water causes the switch to act in the No. 67; whereas boiler must sometimes be drained to cut-off level to make the switch act when a standard half-inch valve is used. Ask the insurance men how they feel about blow-off valves that prevent testing, or can be left open inadvertently. The McDonnell Blow-down Valve complies with the ASME Code; ordinary valves do not!

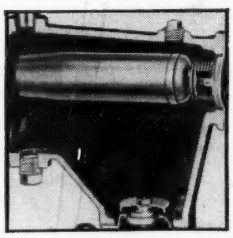


● Most effective sediment removal

The blow-off valve is only part of a complete scheme for eliminating the sediment and silt that could interfere with float action. The rest of the story is the deep sediment bowl of the No. 67. Note that there are no shelves or contours to prevent complete sluicing out of sediment. The smooth V-shaped reservoir catches all sediment and the big blow-off valve sluices it out clean. You can't prevent sediment, but you *can* get rid of it — with the twist of a wrist — in the No. 67.

● Finer float and bellows

If you want evidence of top manufacturing quality look at the operating unit of the No. 67. The heavy gauge copper float is soldered by a special high temperature process to a genuine Fulton Sylphon Bellows — joined leak tight and to stay. Notice, too, that the bellows is pivoted in the center to equalize flexing and minimize metal fatigue. A cam and rocker design prevents communication of minor float bobbing to the switch. This is a vital part of a low water cut-off; and the extra quality here puts the No. 67 in a class all its own.

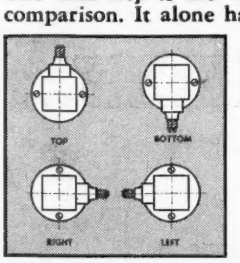


● No other switch like this

The float works the switch, and of course the switch is the heart of a low water fuel cut-off. The No. 67 is the only cut-off with an *extra* switch, (at no extra cost) operating at a higher boiler water level than the fuel cut-off switch. It provides a circuit for an electric (solenoid) water feeder (McDonnell No. 101) or to operate a low water alarm. Both switches are the highly perfected McDonnell snap action type, manufactured throughout in the McDonnell plant. They are Underwriters' approved for a direct A.C. motor load of ½ hp, 115V or 230V — and this rating is significant. Surprising though it may seem, it is far more difficult to handle a load of ½ hp at 115V than at 230V—and that is why so many switches of this kind have only the Underwriters' approval of ½ hp 230V, A.C. This has often proved misleading. The installer may reason that if the switch is approved at 230V it must be approved at 115V. Such an assumption leads to switch failure and trouble. On the other hand if the rating is understood and the switch is used properly — for pilot duty to a line starter — the cost of the starter runs the job far out of line. Look out for this rating pitfall on those larger-motor jobs!

● Wiring is easier, quicker

The final step is the wiring, and here too the No. 67 defies all comparison. It alone has a solid junction box with the threaded conduit connector formed as a part of it. No plugs to knock out; no BX collars inside the box; no possibility of tying up the switches with wiring. Just plenty of room to make connections properly and quickly; again cutting the installed cost of the No. 67. On top of this, the No. 67 has the four position adjustment that permits workmanlike wiring—one of those typical McDonnell refinements.



Yes, you'll find evidence of more value, more dependability everywhere you look—in such refinements as the ¼" tapping for convenient wiring of pressure control; in such details as the sparkling black crackle finish; and even in the complete easy-to-follow installation sheets. Yet the installed cost of the No. 67 is little, if any, more. Ask for Condensed Catalog covering the No. 67 and other McDonnell low water fuel cut-offs, boiler water feeders, feeder cut-off combinations and safety relief valves.

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